

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1365.—VOL. XXXI.

LONDON, SATURDAY, OCTOBER 19, 1861.

(WITH SUPPLEMENT) {STAMPED.....SIXPENCE.
UNSTAMPED.....FIFTEENPENCE.

MR. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL. (Established 17 years.)
Mr. Crofts has to notice that, with the exception of worthless shares (the crop of which is diminishing on the market), adventures in mines will do well to continue to hold both dividend and progressive stocks, for the reason that the market has decidedly become one of a buying than a selling one, and perfectly safe investments may now be entered upon.

MR. CROFTS WILL ADVISE—
RECOMMENDED FOR INVESTMENT OR SPECULATION, with special reference to their present low prices, and to intrinsic merits:—East Basset, Retallack, West Frances, Old Tolgus, Long Rake, Trelawny, Mary Ann, Ludcott, Hingston, Redmoor, Ribden, Norris, Marke Valley, Tolvadden, Wheal Hearle, Moyie, Bryntali, North Minera, North Robert, Sortridge Consols, and Wheal Grylls.

Mr. Crofts doubts if a safer selection can be made of an equal number of mines.

Quotations furnished by telegraph or otherwise.

Holders of mining shares DIFFICULT OF SALE in the OPEN MARKET may hear of purchasers, and also parties IN ARIER OF CALLS, or sued by merchants, may learn their true legal position and be advised how to act, by applying to Mr. Crofts.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.
JAMES LANE has FOR SALE, at net prices:—20 Arthur, 14s.; 25 Alfred Consols, 21s.; 3 Billins, 35s.; 35 Carn Camborne, 22s. 6d.; 20 Crebor, 11s.; 25 Devon Union, 10s.; 20 Dale, 16s. 6d.; 20 East Caradon, 23s. 6d.; 20 East Russell, 23s. 6d.; 50 Great Wheal Martha, 34s.; 10 Gonaema, 21s. 6d.; 30 Great Retallack, 23s.; 2 Herodfoot, 23s. 6d.; 10 Hingston Down, 10 Harriett, 25s.; 50 Lady Bertha, 16s.; 10 Ludcott, 22s. 6d.; 2 Long Rake, 21s.; 20 Lady Ellen, 25s. 6d.; 10 Marke Valley, 21s. 6d.; 20 Molland, 6d.; 20 North Hallen-begle, 45s.; 10 North Downs, 25s.; 20 North Nant-y-Mwyn, 4s. 6d.; 5 Par Consols, 20s.; 20 Penhalg Moor, 30s.; 50 Ribden, 5s. 3d.; 10 Rosewall Hill, 23s. 6d.; 20 South Condurrow, 10s. 6d.; 10 Sortridge, 16s.; 2 Trelawny, 15s. 6d.; 2 Trelawny, 5s. 3d.; 20 West Caradon, 23s. 6d.; 2 West Rose Down, 11s.; 50 West Polmar, 11s.; 20 Wheal Edward, 22s.; 10 Wheal Grylls, 23s. 6d.; 20 Unity, 16s.; 10 Wheal Anne, 35s.

PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES,
79, OLD BROAD STREET, LONDON, E.C. 3
Telegraphic messages to Buy or Sell Mine Shares punctually attended to.

SHARES FOR SALE, CASH:
10 Hingston, 24s. 6d. 1 Rosewarne Utd., 22s. 6d. 5 Wheal Grylls, 23s. 6d.
10 South Frances, 21s. 6d. 5 Redmoor, 3s. 9d. 10 East Russell, 23s. 6d.
10 Wheal Edward, 28s. 6d. 10 Alfred Consols, 21s. 6d. 25 East Caradon, 23s. 6d.
1 West Caradon, 23s. 6d. 1 Ding Dong, 21s. 6d. 50 Lady Bertha, 16s.
20 S. Carn Hooper, 17s. 6d. 20 Rosewall Hill, 23s. 6d. 5 North Basset, 24s. 6d.
20 North Trekerby, 23s. 6d. 5 Marke Valley, 21s. 6d. 25 Great Retallack, 23s. 6d.
25 North Minera, 22s. 9d. 5 Great Fortune, 13s. 6d.
OFFER WANTED FOR THE FOLLOWING:—
10 Nant-y-Mwyn, 4s. 6d. 20 West Devon Consols.
20 Cardigan Consols. 20 Harriett, 25s. 35 East Russell, 23s. 6d.
20 Gawton, 20s. 20 Okei Tor, 20s. 20 South Wheal Kitty, 20s.
20 Rosewall, 20s. 20 South Wheal Level, 20s. 10 Trelawny, 15s. 6d.
20 Nant-y-Lago, 20s. 20 Ludcott, 22s. 6d. 10 Trelawny, 15s. 6d.

Apply to PETER WATSON, 79, Old Broad-street, London, E.C.

WHEAL GRYLLS.—The different points of operations are worth £200 to £250 per fathom. In the engine-shaft the lode is worth £16 to £20 per fathom, and the bottom of Georgia shaft £40 per fathom; back of the adit, £30 per fathom, and south £40 per fathom; and in back of 33 fm. level, £16 per fathom. The ends have improved during the week, as will be seen from the report of the agents published in another column. The last two months' sale of tinstuff (for Aug. and Sept.) was £1800, and will leave a profit of about £600 to £650; and when the stamps get to work profits will be increased. The shares in this mine are a good investment, and may be considered the cheapest in the market for investment.

NORTH TREKERBY.—A SPECIAL REPORT on this mine appears in PETER WATSON'S "WEEKLY CIRCULAR" of yesterday (Friday) No. 186, price 1s.—79, Old Broad-street.

MR. W. LELEAN, MINE SHAREBROKER,
11, ROYAL EXCHANGE, LONDON, E.C.

MR. E. GOMPERTS, MINING OFFICES,
3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.
BUSINESS TRANSACTIONS IN BRITISH AND FOREIGN STOCKS AND SHARES.
Terms, 1 1/2 per cent.—BANKERS: London and Westminster Bank.

MESSRS. R. HORLEY AND CO., SWORN STOCK, SHARE, AND MINING BROKERS, 45, CORNHILL, E.C. (late of 2, Royal Exchange-buildings), continue to TRANSACT EVERY DESCRIPTION OF MINING BUSINESS, and are in a position to obtain reliable information respecting all dividend and progressive mines.

N.B.—Messrs. HORLEY and Co. publish a Weekly Mining List, with the closing prices every Wednesday, and will be most happy to forward the same (gratis) on application.

MR. T. ROSEWARNE, 75, OLD BROAD STREET, LONDON, E.C., HAS FOR SALE:
Bedford Consols, 3s. 9d. Gawton, 2s. 6d. North Minera, 21s. 6d.
Drake Walls, 18s. 6d. Great Retallack, 21s. 6d. So. Carn Hooper, 16s.
East Caradon, 23s. 6d. Hingston, 15s. 6d. Sortridge, 16s. 6d.
East Russell, 23s. 6d. Lady Bertha, 16s. Stray Park, 23s.
East Carn Brea, 23s. 6d. Long Rake, 21s. 6d. Wheal Edward, 22s.
East Devon Cons., 32s. 6d. North Basset, 24s. 6d. Wheal Arthur, 39s.
East Grenville, 39s. 6d. North Downs, 25s. 6d. Wheal Norris, 37s. 6d.
East Basset, 26s. 6d. North Minera, 21s. 6d. Wheal Seton, 24s.
And is a BUYER OF:—
20 North Downs, 25s. 6d. Sortridge, 16s. 6d. North Croft, 27s. 6d.
100 North Robert, 17s. 6d. 50 Wheal Basset, 24s. 6d. 100 Hingston, 24s. 6d.
100 Wheal Arthur, 12s. 50 Wheal Edward, 36s. 100 Wheal Grylls, 27s. 6d.

AN OFFER WANTED FOR:—
Wheal Anne, 35s. Okei Tor, 20s. Calstock Consols, 10s.
October 15, 1861. Bankers: Bank of London.

MR. JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, LONDON, E.C.
The "Mining Share Monitor," published monthly, contains valuable information on the soundest dividend and progressive mines. Free for 6d., or 5s. per annum. Advice to capitalists by letter or personally.
BANKERS: London Joint-Stock Bank.

GEORGE RICE, SHAREBROKER, 1, FINCH LANE,
Has FOR SALE:—
10 East Basset, 26s. 6d. 1 North Basset, 24s. 6d. 50 Sortridge, 16s. 6d.
10 East Russell, 23s. 6d. 50 Great Retallack, 23s. 6d. 10 Wheal Ludcott, 22s. 6d.
10 East Caradon, 23s. 6d. 10 Lady Bertha, 16s. 10 West Caradon, 23s. 6d.
10 East Grenville, 39s. 6d. 10 Marke Valley, 21s. 6d. 10 Stray Park, 23s. 6d.
10 East Devon Cons., 32s. 6d. 10 North Downs, 25s. 6d. 10 Wheal Seton, 24s. 6d.
10 Hingston Down, 24s. 6d. 50 Wheal Emma, 37s. 6d. 10 West Seton, 24s. 6d.
East Caradon.—Latest Report: 60 east, £50 per fm.; 60 west, £20; branch, 24s.; 60 west, 25s.

INVESTMENTS FOR CAPITAL.
RAILWAY, BANKING, AND MINING CIRCULAR, (4s.)
Contains RELIABLE INFORMATION AND ADVICE TO CAPITALISTS, REPORTS OF MINES, RAILWAYS, BANKS, &c., RECORD OF MARKET PRICES, and is the ONLY SAFE GUIDE FOR THE INVESTMENT OF CAPITAL.
HENRY GOULD SHARE, 62, FOLKLY, LONDON E.C.

MR. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 14 years), has FOR SALE the following shares at net prices:—100 Redmoor, 4s.; 25 North Downs, 25s.; 50 East Grenville, 37s. 6d.; 3 East Basset, 26s. 6d.; 50 Dale, 16s. 6d.; 65 East Rosewarne, 24s. 6d.; 20 North Basset, 24s. 6d.; 100 Great Wheal Martha, 4 West Bryn Gwlog, 17s.; 3 West Caradon, 23s. 6d.; 55 Unity, 16s. 6d.; 25 Hingston Down, 10s.; 10 East Caradon, 23s. 6d.; 15 Wheal Hearle, 30s.; 20 Creake, 22s. 6d.; 50 Ribden, 5s. 3d.; 65 West South Caradon, 17s.; 4 Silver Rake, 21s. 6d.; 50 Great Retallack, 23s.; 20 Tincroft, 30s.; 10 Ludcott, 22s. 6d.; 100 Sortridge Consols, 15s. 6d.; 200 West of Ror, 32s. 6d.; 45 East Alfred, 100 Great Caradon, 10s.; 50 West Polmar, 11s. 3d.; 100 Great Trevelyan, 12s.; 1 South Caradon, 20s.; 20 Trelawny, 15s. 6d.; 35 Buller and Street, 100 United Mines (Tavistock), 24s.; 15 Worvas Downs, 15s. 6d. 15 Wheal Union.
Holders of shares difficult of sale may find purchasers through Mr. Budge.

GEORGE MOORE, 1, CROWN COURT, THREADNEEDLE STREET.
GEORGE MOORE will sell the following SHARES, or any part, to-day, at quoted prices, FREE OF ANY COMMISSION:—
25 Rosewall, 21s. 6d. 25 East Rosewarne, 24s. 6d. 100 North Minera (21s. 6d. paid, Limited), 21s. 6d.
2 Bryn Gwlog, 23s. 6d. 50 North Dolcoath, 13s. 6d. 1 West Caradon, 23s. 6d.
25 Carn Brea, 45s. 9d. 50 North Downs, 25s. 6d. 1 West Wh. Seton, 23s. 6d.
50 East Grenville, 39s. 6d. 25 Tolcarne, 22s. 6d. 1 West Wh. Seton, 23s. 6d.
In any business that GEORGE MOORE is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:
15 Anglo-Mexican Mint. 2 Herward Utd., 23s. 6d. 20 South Caradon Hooper, 17s. 9d.
10 Alfred Cons., 20s. 9d. 10 Holmbush, 21s. 6d. 1 South Caradon, 22s. 6d.
2 Bryn Gwlog, 23s. 6d. 2 Kitty (Leland), 27s. 6d. 1 St. Ives Cons., 23s. 6d.
2 Billins, 35s. 10 Kelly Bray, 19s. 9d. 50 Sortridge Cons., 16s. 6d.
1 Brynford Hall, 21s. 6d. 50 Lady Bertha, 16s. 6d. 50 St. Day, 10s. 6d.
20 Buller and Basset. 20 Linars, 26s. 6d. 5 S. Bryn Gwlog, 23s. 6d.
1 Carn Brea, 27s. 6d. 10 Ludcott, 22s. 6d. 10 S. Carn Brea, 23s. 6d.
5 Cobre, 23s. 6d. 10 Leland Consols. 1 S. Wh. Frances, 10s. 6d.
20 Cefn Cileon, 10s. 9d. 100 Molland, 2d. 20 Tincroft, 30s. 6d.
10 Carn Brea, 45s. 9d. 5 Marke Valley, 21s. 6d. 20 Silver Bank (20s. paid), 5s. 6d.
100 Carn Camborne, 23s. 9d. 2 Mary Ann, 21s. 6d. 5 Trelawny, 14s. 18s. 9d.
1 Cargill, 21s. 6d. 44 North Minera. 30 Tamar Cons., 11s. 7s.
2 Cook's Kitchen, 23s. 6d. 20 North Basset, 24s. 19s. 6d. 20 Tolvadden, 22s. 6d.
2 Charlotte United, 22s. 9d. 10 North Trekerby, 23s. 6d. 50 Utd. Mexican, 26s. 9d.
20 Cuddra, 3s. 6d. 20 North Downs, 25s. 6d. 40 Vale of Towry, 5s.
50 Carn Vivian (an offer wanted). 20 New Treleigh. 2 W. R. Down, 24s. 6d.
40 Dale, 18s. 9d. 5 North Dolcoath, 15s. 9d. 10 West Sharp Tor, 20s.
20 Deep Level, 10s. 6d. 20 Nanigles, 22s. 2s. 10 Wheal Unity, 16s. 9d.
20 Drake Walls, 16s. 9d. 30 Nant-y-Lago, 4s. 6d. 1 West Seton, 23s. 6d.
20 Devon Union, 5s. 9d. 10 New Frances, 7s. 9d. 10 West Basset, 21s. 6d.
1 Ding Dong, 21s. 6d. 1 No. Roskear, 21s. 18s. 9d. 10 Wheal Basset, 21s. 6d.
20 East Russell, 23s. 6d. 20 North Buller, 23s. 6d. 10 Wheal Basset, 21s. 6d.
10 East Carn Brea, 23s. 6d. 20 North Hadof, 10s. 6d. 10 Worthing, 11s. 9d.
30 East Providence (an offer wanted). 10 North Frances, 23s. 6d. 5 Wendron Consols.
10 East Rosewarne, 25s. 9d. 10 North Robert, 26s. 6d. 10 Wh. Grenv., 38s. 6d.
20 East Grenville, 37s. 3d. 30 New Abraham. 30 Wheal Harriett, 21s. 6d.
5 E. Caradon, 23s. 6d. 60 No. British Australian, (including call).
30 English and Australian. 5 Okei Tor. 10 Wheal Crebor, 24s.
Copper, 23s. 10s. 6d. 5 Felyn Wood (last call). 10 Wheal Edward, 39s.
30 East Kewsterg (fully paid up £5), 36s. 30 South Buller and West. 5 Wheal Uty, 24s.
20 East of Ror, 14s. 30 Penstruthal, 3s. 9d. 30 West Polmar, 13s. 6d.
2 East Basset, 26s. 6d. 1 Old Tolgus, 21s. 6d. 10 West Tolcarne, 7s. 9d.
5 Great S. Tolgus, 24s. 1s. 6d. 20 Port Phillip, 21s. 6d. 1 Wheal Seton, 23s. 6d.
1 Gambler, 21s. 6d. 1 Providence, 24s. 6d. 2 Wheal Moyle.
10 Great Alfred, 9s. 9d. 20 Pendean, 2s. 20 W. S. Caradon, 16s. 9d.
50 Great Moelwyn (£115s. paid), 21s. 6d. 1 Rosewarne United, 22s. 6d. 1 West Caradon, 23s. 6d.
50 Gt. Northern Copper, 30s. 6d. 20 Rosewall Hill & Ransom, 25s. 9d. 5 Wheal Prosper.
20 Great Crinid, 32s. 6d. 20 Ribden, 5s. 3d. 5 Wheal Hearle.
30 Great Martha, 32s. 9d. 30 South Herodfoot (offer wanted). 2 West Frances.
2 Gt. Fortune, 13s. 6d. 10 St. John d. Rev., 24s. 18s. 9d. 2 W. Bryn Gwlog, 23s. 6d.
20 Great Retallack, 20s. 9d. 1 Stray Park, 23s. 6d. 2 West Trevelyan, 22s. 6d.
20 Hings. Down, 24s. 18s. 9d. 30 S. Condurrow, 9s. 9d. 30 West Wendron, 5s. 9d.
2 Herodfoot, 23s. 6d. 30 S. Condurrow, 9s. 9d. 20 Wheal Arthur.

And is a BUYER OF 50 Buller and Basset, 10 Old Tolgus, 50 Hingston Down, 10 Bryn Gwlog, and 50 Rosewall Hill and Ransom United.
2, Adam's-court, Old Broad-street, October 18, 1861.

MESSRS. VIVIAN AND REYNOLDS, 68, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS OF MINES, COMMISSIONERS, AND GENERAL AGENTS FOR THE PURCHASE OR SALE OF MINE SHARES, RAILWAY, AND EVERY OTHER DESCRIPTION OF STOCK.

Commission on share transactions, 1 1/2 per cent. on £100 and above, and 2 1/2 per cent. on less sums.

MR. C. POWELL, MINE SHAREBROKER,
2, SPREAD EAGLE COURT, FINCH LANE, LONDON, E.C.

MR. EDWARD COOKE, MINING, STOCK, AND SHAREBROKER, 5, HERCULES PASSAGE, THREADNEEDLE STREET, LONDON, E.C., will feel much pleasure in advising those who may favour him with their confidence on the merits of the various mines usually dealt in, and also on any new concerns that are from time to time brought before the notice of the public, and has FOR SALE, at the following NETT PRICES, CASH:—
25 Carn Camborne, 21s. 6d. 20 Wh. Grenville, 38s. 6d. 35 Nant-y-Lago, 4s. 6d.
1 Wheal Seton, 23s. 6d. 20 East Damsel, 24s. 6d. 10 North Basset, 24s. 6d.
2 West Caradon, 23s. 6d. 5 East Caradon, 23s. 6d. 50 St. Day Unity, 11s.
1 Gramb. and St. Aubyn, 16s. 6d. 3 Great Fortune, 13s. 6d. 10 Tincroft, 30s. 6d.
20 Great Retallack, 21s. 6d. 5 Cook's Kitchen, 23s. 6d. 20 Wheal Moyle.
25 Unity, 16s. 6d. 1 Copper Hill, 11s. 6d. 5 Calvadach, 2s. 6d.
25 East Grenville, 36s. 6d. 2 Trelawny, 15s. 6d. 60 Polgar, 5s.
100 North Robert, 17s. 6d. 2 Long Rake, 21s. 6d. 10 Ludcott, 22s. 6d.

Oct. 18, 1861. Bankers: London and Westminster, Lothbury.

MR. JAMES HAMMON, STOCK AND SHAREDEALER,
1, CROWN COURT, THREADNEEDLE STREET, LONDON.

MR. R. H. M. JACKMAN, MINING AND SHAREBROKER,
2, ADAM'S COURT, OLD BROAD STREET, E.C.,
Offers FOR SALE, free of commission, for cash:—
1 Wheal Basset, 23s. 6d. 15 East Caradon, 23s. 6d. 20 Tamar, 30s. 6d.
40 North Robert, 23s. 6d. 40 West Polmar, 10s. 6d. 50 Sortridge Cons., 16s. 3d.
20 So. Carn Hooper, 16s. 3d. 1 South Tolgus, 21s. 6d. 20 Drake Walls, 17s.
20 Carn Camborne, 23s. 6d. 20 Carnadon Cons., 23s. 6d. 50 Huckworthy, 1s. 3d. 1/2

Oct. 18, 1861. Bankers: London and Westminster, Lothbury.

MR. THOMAS SPARGO, SHAREBROKER,
234 and 235, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.
Commission, 2 1/2 per cent.

MR. J. S. PHILLIPS, C.E. AND M.E., SHAREBROKER, &c.,
12, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, has returned from a tour through the Cornish mines.

JOHN RISLEY, SHAREBROKER,
32, LOMBARD STREET, LONDON, E.C.

RICHARD CLIFT, MINE SHAREDEALER,
late of Redruth, now 48, THREADNEEDLE STREET, LONDON, where all letters are to be addressed.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 26, THROGMORTON STREET, LONDON, E.C.
Commission, 1 1/2 per cent. on £100 and above, and 2 1/2 per cent. on less sums.

MR. JOSEPH GREGORY has REMOVED from Bank Chambers,
Lothbury, to No. 2, GREAT ST. HELEN'S, BISHOPSGATE STREET, where all communications are to be addressed.

Bankers: City Bank, Threadneedle-street.
Commission on purchase and sale of shares, 1 1/2 per cent.

MR. GEORGE BATTERS, 5, COWPER'S COURT, BIRCHIN LANE, DEALER IN BRITISH MINING SHARES AND OTHER SECURITIES.

Mr. BATTERS, from long experience and intimate acquaintance with all Mining Stocks, can advise as to investment of capital, at closest market prices, and has made a selection of Dividend paying and sound Progressive Stocks into which he can with confidence recommend investments at present depressed prices. The favourable turn in the market for metals, and the reduction in the Bank's rate of interest, would point to prices having seen their lowest for the present.

Mr. BATTERS is a BUYER OF Wh. Grenville, Wh. Grenville, Long Rake, E. Caradon, West Caradon, East Carn Brea, No. Down, Cook's Kitchen, and Bryn Gwlog. And is a SELLER of 1 Carn Brea, 28s. 6d. 60 Carn Camborne, 23s.; 1 East Basset, 26s. 6d.; 10 East Caradon, 23s. 6d.; 50 Great Retallack, 21s.; 20 Hingston Down, 24s. 6d.; 20 North Downs, 25s. 6d.; 50 Sortridge Consols, 16s. 6d.; 1 South Caradon, 22s. 6d.; 5 Stray Park, 23s. 6d.; 20 Tolvadden, 22s.; 10 Trelawny, 15s. 6d.; 50 Wheal Unity, 16s. 6d.

MR. BATTERS has SPECIAL BUSINESS in the SHARES OF EAST CARADON AND MARKE VALLEY.

THE MIDLAND IRON COMPANY, ROTHERHAM,
MANUFACTURERS OF BEST "YORKSHIRE" and of STEEL IRON TYRE BARS, for LOCOMOTIVE ENGINE, CARRIAGE, and WAGON WHEELS. Also of REFINED, SCRAP, STEEL IRON and "YORKSHIRE" BARS, HOOPS, RAILS, ANGLE IRON, MALLEABLE SHAFTS, AXLES and FORGINGS.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON.

VALUABLE MINING PROPERTY, comprising the CASARA LEAD MINE, situated under the several farms known as Casara, Curbrance, and Pentwyn, in the parishes of LLANGADOCK and MOTHREY, CARMARTHENSHIRE, together with an excellent agent's residence, account-house, offices, stabling, and other BUILDINGS, PLANT, MACHINERY, STORES, and MATERIALS.

MR. T. P. THOMAS has been instructed by the liquidators of the Casara Lead Mining Company (Limited) to SELL, BY PUBLIC AUCTION (with immediate possession), at Garraway's Coffee House, Change-alley, Cornhill, London, on Thursday, the 7th of November, 1861, at One o'clock precisely, and subject to such conditions as shall be then and there produced, the whole of the above VALUABLE MINING PROPERTY, on which a very considerable capital has been expended by the proprietors, and which is now in full working order and condition.

The machinery, amongst other things, includes a 36-in. CONDENSING PUMPING-ENGINE, a CORNISH BOILER (10 to 12 tons), 29 feet long, in good condition, and 30 feet of 7 in. pumping and valuable drawing machinery. The furniture belonging to the vendors in the agents' residence, with the horses, carts, and carriages, are to be taken by valuation by the purchaser in the usual way.

For particulars, and to view, application may be made to the agent at the mine; and for further particulars, and conditions of sale, application to be made to Messrs. INGLE and GOODBY, solicitors, 37, King William-street, London-bridge, E.C.; to WILLIAM CHARLES, Esq., 27, Austinfriars, London, E.C.; at Garraway's, or to the auctioneer, at his offices, 2, Crown-court, Threadneedle-street, London, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 16, HACKINS HEY, LIVERPOOL.

JOHN ROBERT PIKE, GENERAL SHAREDEALER,
3, PINNERS COURT, OLD BROAD STREET, LONDON, E.C.

FREDERICK WILLIAM MANSELL, MINING OFFICES,
1, HATTON COURT, THREADNEEDLE STREET, LONDON, E.C.
BANKERS: London Joint-Stock Bank.

JOHN GLEDHILL AND CO., MINE AGENTS AND SHAREBROKERS, MINING OFFICES, CORN EXCHANGE, LEEDS.

STOCK AND CO. LEAD AND SILVER SMELTERS,
PENCLAWDD, NEAR SWANSEA.

MR. J. SYKES, LEEK, STAFFORDSHIRE.
Is in a position to DEAL SPECIALLY in HIDDEN and DALE SHARES.

Reliable information.
FOR SPECIAL SALE:—4 (96ths) in Kilmorez Lead Mine, £60; 7 (100ths) South Kilmorez Lead Mine, £15; 3 (96ths) Lady Eleanor Lead Mine, £25; 2 (96ths) South Pant-y-Gof, £30; 3 Thortree, £5; 2 (128ths) Guern-y-Mynwdd, £10; 10 (fully paid) Pant-y-Buarth, £10.

MESSRS. THOMAS PENROSE AND THOMAS PRICE
UNDERTAKE ASSAYS AND ANALYSES OF EVERY DESCRIPTION OF MINERAL PRODUCT, FUEL, and MANURES, at Messrs. Richardson and Co.'s Assay Office and Laboratory, Copper Ore Wharves, Swansea.

MESSRS. C. TOOKEY, F.C.S., AND M. W. JOHNSON, F.C.S.,
ASSAYERS, ANALYSTS, AND CONSULTING CHEMISTS.
LABORATORIES, 44, LINCOLN'S INN FIELDS, W.C.

MR. M. GILDROY STEWART, CONSULTING MINING ENGINEER,
COLLIERY VIEWER AND SURVEYOR,
INSPECTOR AND VALUER OF MINES AND MACHINERY,
BEDMINSTER, BRISTOL.

MR. WM. HENDERSON has REMOVED from Alderley Edge to
LONDON, and from the extremely favourable results obtained by two works now in operation on Spanish and Cornish copper ores, he is now in a POSITION to FURNISH EVERY INFORMATION on the WORKING of his processes on every variety of POOR COPPER ORES. Silver, gold, cobalt, nickel, and tin ores can also be treated to great advantage.

Mr. HENDERSON is PREPARED to GRANT LICENSES to any extent, and to UNDERTAKE THE PROFITABLE REDUCTION OF COPPER ORES, if above 1 per cent. produce, and in sufficiently large quantities.

Parties desirous of seeing their own ores operated upon, to the extent of 50 tons, can be accommodated on reasonable terms.

All communications to be addressed to 44, Addison-road, Kensington, W.

MINING IN IRELAND AND ELSEWHERE.
MR. F. LISABE, C.E. AND CONSULTING MINING ENGINEER, begs to inform his clients that he has taken as his residence 39, GLOUCESTER CRESCENT, REGENT'S PARK, N.W., to which address all communications are in future to be directed, and he will be happy to attend to any appointment (made by letter) connected with his profession.

LOWER TALDRWS AND CLODD FA COED SLATE COMPANY (LIMITED).—ONE HUNDRED AND TWENTY SHARES FOR SALE, at 10s. per share (£10s. paid).—Apply to "M." care of Mr. Revett, 70, King William-street, London, E.C.

WANTED, THREE OR FOUR THOUSAND SHARES,
at market prices, in NORTH WHEAL ROBERT MINE.—Application to be made to Mr. E. S. Codd, George-street Chambers, Plymouth.

WANTED, for the LAXEY MINES, ISLE OF MAN, an
EXPERIENCED UNDERGROUND AGENT, whose character will bear the strictest scrutiny for sobriety, honesty, and activity. As the chief of his time will be devoted to the underground department, he will be expected to understand dialling, levelling, &c., and also to have a knowledge of surface work.—Apply, with testimonials and references, stating salary and when at liberty, to Mr. WILLIAM BECKWITH, Harcourt, Douglas, Isle of Man. [This advertisement not to be repeated.]

FIRE-CLAY CRUSHERS.—WANTED, A PAIR OF LARGE
FIRE-CLAY ROLLERS and REVOLVING PAN, to crush wet fire-clay, ready for making bricks. It must be in good working condition. Or for dry clay would answer. Apply, with particulars, price, &c., to Mr. PLATT, Oakland House, Stokesley, Yorkshire.

SOUTH WALES MINING DISTRICT.—A GENTLEMAN,
thoroughly acquainted with the South Wales mining district, WISHES to TRAVEL for or REPRESENT a FIRST-CLASS HOUSE. Has a good connection, and can give unexceptionable references and security if desired.—Address, "A. B.," 8, Bailey-street, Newport, Monmouthshire.

COLLIERY PARTNERSHIP.—A PARTNER is WANTED to
JOIN the ADVENTURER in DEVELOPING the MINERALS of ONE of the FINEST FIELDS in the SOUTH WALES MINING DISTRICT. The lease comprises nearly 2000 acres of coal, in extensive demand for manufacturing, steam, and domestic purposes, held at very moderate rents per acre. The coal has been proved to be easily accessible, and lies altogether in a situation admirably adapted both for working and transit, by trunk lines, to any part of the kingdom. A direct communication with London.—For further information, apply to Messrs. CORBETT and WOOD, mineral agents, 18, Wain-gate, Sheffield.

TO COMMERCIAL TRAVELLERS AND COMMISSION AGENTS, whose BUSINESS is CONNECTED with ENGINEERS, RAILWAY, DOCK, and GAS COMPANIES, IRON SHIPBUILDERS, and IRONMONGERS.—WANTED, AGENTS to UNDERTAKE the SALE of an IRON PAINT, already well introduced, and during a three years' trial proved to be of very superior quality by several railway companies and leading firms in London and elsewhere.—Address, "J. W.," Post-office, Neath, Glamorganshire.

Original Correspondence.

SOUTH MOSTYN EXPLOSION.

SIR,—The only praiseworthy circumstance in connection with these awful explosions is the exertions made by all classes of the disinterested public to alleviate the sufferings of the bereaved, and ameliorate their painful condition by pecuniary relief. The utmost that this relief can effect, after such serious devastation, is to mitigate the sufferings arising from deprivation and want. It is more than questionable whether this relief should be wholly dependent on the exertions of the sympathising public. It is irregular, unequal, uncertain, and in all cases inadequate, and its tendency is to exonerate the only persons who ought to be called on to make the sacrifice, when the calamity can be properly traced to the inefficiency of the agency they may have employed. We have the following simple, definite, and conclusive propositions laid down by the *Colliery Guardian* of October 12:—"If every lamp used in the mine had been properly secured, and if there had been no other means of obtaining a light but by such a lamp, there would have been no naked light; and also, that if there had been no naked light there would have been no explosion." This is as simple, clear, and definite as the most earnest advocate of efficient mine discipline could desire; but it is, notwithstanding, very incomplete. I will venture to add another proposition, to this effect—That had there not been a most serious accumulation of inflammable gas, caused by deficient ventilation, the improperly secured lamp would not have caused an explosion. Some months ago it was stated in the *Mining Journal*, "the primary cause of these explosions is undue accumulation of explosive gases;" and it is the delinquent whose unfitness or neglect allows of these accumulations who should primarily be held responsible for the consequences; and not only the person who is proved or supposed to have made improper use of his safety-lamp. I advocate the most stringent rules, regulations, and inspection of the whole of the lamp-lighting economy of the mine. But lamps are not only liable to being tampered with, they are also liable to accidents; hence the indispensable necessity of the 1st general rule, to provide "an adequate amount of ventilation to dilute and render harmless noxious gases," being complied with in every colliery by the "owner and agent thereof." We are told, and I think correctly, by the paper already referred to, "that explosions are in their causes very simple affairs." It is a great pity that this simplicity should be rendered a tangled complication by the mode of investigation pursued at the coroners' inquisitions held on such cases. A serious and extensive explosion has occurred, happily producing a little loss of life as could be well expected from such a cause. That this explosion has been caused by naked flame being brought into contact with an extensive accumulation of gas, is an incontestable fact, the point of the enquiry being—Was this state of things either proper or unavoidable? Was the accumulation of gas unavoidable? Could the ventilation of this mine have been so managed as to prevent its being in such a foul condition? We are told that the "general ventilation was good, and that the air was as good that night as the men had ever known it." "The air-ways were of good width"—the witness says 5 feet square, no very extraordinary dimensions. If the usual condition of this colliery was safe, was there any unusual occurrence to render it otherwise? Although it is not very clearly stated, it would appear that there had been. Thomas Jones and Thomas Hughes were called out of the pit at five a.m., on the morning of the explosion. Jones "neither saw nor heard anything out of the ordinary way whilst down in the pit all night." "The air was very good," and he "noticed there was no deficiency in the supply." The reason he and Hughes came out of the pit was, "hearing the engineer or somebody calling upon us to do so." They knew nothing what for, or anything. There seems nothing in this to prove the pit in an usual state; but when they came up they "noticed the fan was on fire, and immediately heard a report as of an explosion in the pit."

Let the jury ascertain by a thorough investigation what was the cause of the pit being in so unsafe and foul a condition; whether a general and usual deficiency of ventilation, or some unusual occurrence. If from nothing unusual, let them settle the blame on those whose duty it was to provide sufficient ventilation, without regard to consequences, for with that they have nothing to do. If from something unusual, let them ascertain if this had been properly foreseen and provided for, or if it had been cautiously and properly dealt with when it did occur. This is simply and plainly their duty, and they ought not to allow themselves to be diverted from a thorough investigation by any improper influence. With pain I perceive that the coroner is satisfied with the meagre evidence already taken, and without the presence or assistance of Mr. Higson, the Government Inspector. It is also evident that, "so far as he is personally concerned in the investigation, he was satisfied that every care had been exercised by the proprietors." I only earnestly hope that when the whole of the evidence is produced such may be the united verdict of the coroner, jury, Inspector, the public, and persons qualified to form a correct judgment on the case.

The *Colliery Guardian* gives expression to the following important truth:—"If the ventilation of a mine be sufficient to clear it of gas, and the men be sufficiently cautious to abstain from the use of naked lights where there is danger of an effusion of gas, there will be little likelihood of an explosion, and both manager and workmen may pursue their several avocations in security and peace;" which will be equally true, important, and correct if rendered thus:—"If the ventilation of a mine be not sufficient to clear it of gas, and the men be not sufficiently cautious to abstain from the use of naked lights where there is danger of an effusion of gas, there will be every likelihood of an explosion, and both manager and workmen cannot pursue their several avocations in security and peace. Who is amenable for making and enforcing proper special rules in respect to the use of naked lights and safety-lamps, and of making the ventilation of a colliery sufficient to clear it of gas, but the owner and agent thereof?"

The *Colliery Guardian* raises the question whether mechanical or furnace ventilation is the most advisable. This is something like the usual and hackneyed plan of trying to raise a false scent. Suppose some derangement did occur to the fan or machinery connected therewith, certainly there was no reason why this should cause an explosion. If by reason of accident to the ventilating apparatus the fan was brought to a complete stand, yet there would have been sufficient time to have withdrawn the workmen from the mine, and I fully agree with the same paper, that "had there been no explosion, it is probable they (the men) would have managed to get out of the mine alive, notwithstanding the suspension of the ventilation." Up to this moment I have seen no evidence proving any suspension of either the ventilation or the fan. Supposing the fan ceases to work, natural ventilation may reasonably be expected to have preserved some current in the mine. If a stoppage did occur to the fan, it would seem the currents of the mine must have very suddenly become explosive, proving that the ordinary ventilating current was so deficient as to leave a very trifling margin of safety, or otherwise that proper measures to withdraw the workmen had been neglected. There is no proof that the Risca explosion was in any measure due to derangement or inefficiency of the ventilating power employed, nor should such circumstance be taken for granted at Mostyn; for if it were correct there was not the slightest reason in the world that it should result in an explosion if due precautions had been taken. A fan may be neglected, so may a furnace. Explosions have occurred where the motive-power has been mechanical, such is also the sad fact as regards the furnace. At many collieries long periods of time have elapsed without any explosion arising from the use of the furnace; such has also been the case with mechanical ventilation, for such means have been in use in this country, in Wales and Yorkshire, and on the Continent, for a considerable length of time, working safely and with complete satisfaction. Explosions have taken place at the flames of furnaces; such, I fear, has also been the case in this instance at a fan in flames; for I repeat Jones's evidence, "I noticed the fan was on fire, and immediately I heard a report as of an explosion in the pit," first the fan is in flames, and then, and not till then, an explosion in the pit. It would almost seem from this that, under ordinary circumstances, the ventilation of the mine was so deficient that the current issuing from the up-cast pit was in an explosive condition. At this we need not be surprised, if the recently enlarged dimensions of the main air channels was only 5 feet square. With mechanical means, we have had cases of deficient ventilation, a state of things of too frequent occurrence where the furnace is in use. By a fracture in the machinery the ventilation may suddenly be considerably reduced—probably, never entirely suspended or reversed; while from the destruction of the cast-iron shaft tubing, as the result of excessive temperature from the furnaces, the tubing has frequently failed, and in a moment poured down the up-cast pit a complete cataract of water, and thus instantly not merely retarding or suspending the ventilation, but entirely and violently reversing it, causing a scene of danger and confusion only exceeded by an explosion itself.

I give no decided opinion as to the merits of the modes of producing

motive-power for ventilation, whether by temperature or by mechanical means; I only desire to show that they are both liable to derangement, and that in the case of the fan, at least, there is no absolute necessity that, when by reason of such derangement the issuing current should be so reduced as to become explosive, it should be permitted to come into contact with naked flame; while, with the furnace, such a result is almost inevitably certain.—Oct. 12.

A VIEWER.

ANALYSIS OF "TRAP."

SIR,—Through the kindness of Messrs. Chance Brothers, I am enabled to give your readers the analysis of the trap, or basaltic hills that rise up through the coal measures in the centre of the South Staffordshire Coalfield; and the large proportion of oxide of iron would, I think, account for its magnetic influence upon the needle of the dial:—

Silica	48	Moisture and volatile matter	4
Alumina	18	Soda	4
Oxide of iron	18	Hydrochloric acid	1
Lime	9		
			—100

Dudley, Oct. 16.

ANTI-AQUEOUS.

EXTRACTION OF COPPER BY PRECIPITATION.

SIR,—Not having seen any remarks in the *Journal* lately relative to the extraction of copper in this county by precipitation, it may not be out of place to state that at and below Bissoe there are several copper precipitate works, which in the aggregate yield annually a considerable quantity of copper, which is obtained by filtering the mineral waters from the adjacent mines. The system was introduced about three years ago by a person named Symons, then returned from Cuba, where he first became acquainted with the mode of operation. The precipitated ore is of good quality, yielding an average of from 45 to 50 per cent. of fine copper. The works are very simple, and consist of excavations, varying from 3 to 5 ft. in depth, made in the dry bank of the river, from which drains are carried out through its bed, and into which the water is filtered through the alluvium, which consists of sand brought down by the waters flowing from the Great Wheel Busy, Consolidated, and other mines. The filtered water is then passed through strakes, wherein is deposited scrap or other iron, whereby the copper is obtained. Heretofore hundreds of tons of copper held in solution in these waters, which have flown down into the sea, might have been arrested in its progress, and, as now, be made a source of employment and profit to a great many individuals. No doubt there are other places in this county where similar works might be carried out to great advantage, and if similar means should not be available for filtering the water, perhaps other means equally effective might be employed. Should this communication meet the eye of any of your readers who may be conversant with any such other means applicable to filtering on a large scale, its publication in your columns might be made a great benefit, and prove alike profitable to the party communicating it and the writer of the letter.

Chacewater, Oct. 15.

OBSERVER.

SILVER VEIN MINE.

SIR,—In reply to a "Shareholder," in last week's *Journal*, you will oblige by allowing me to inform that gentleman, and all others interested, that after having been engaged all day at the company's works, I spent last night many hours underground, closely inspecting the present state of the silver-bearing lodes, and found no failure as to the abundance of ore that can be raised therefrom, nor do I know of any failure of my operations therein, having taken without selection the ore in bulk, with a view of fairly coming at their commercial value for silver. It will afford me great pleasure to attend at any time a meeting of shareholders, giving my explanations, and if no longer honoured with their confidence, to tender my resignation.—*Lostwithiel*, Oct. 16.

F. SQUIRE.

GOLD IN WALES.

SIR,—There never was any remark started by man but others were sure to differ. Take gold, for instance, about which so many diverse opinions as to its origin, nature, and uses are raised, that each tend more to deceive than testify truth. What with the ancient doctrine that all material matter was organised, and rendered eternally irrevocable by the supreme will of an Almighty fiat, which divine decree different sets of men divide, one party declaring all mundane things were first produced by the action of fire. Contrary to the fiery vindicators follow the Neptunists, who as boldly assert the whole created matter of this globe originated from water. Some few there are who insensibly imagine every change of materiality was brought about by chance, over which no controlling power was requisite; others, again, advocate the theory that every substance is but the condensation of four elementary ethers, in such chemical proportions that formulas are compiled, registering the absolute ratio of each atomic primary constituting the matter in question. Last, though not least, comes the electrician expounders, publicly asserting every phenomenon is merely the result of some unexplainable electric action upon pre-existing matter, which mankind can never fully comprehend; and yet this class of electric hypothesisists mostly arrive at such conclusions after all their own self-created philosophy fail in unveiling the hidden mysteries of Nature's workings; whereas, had most philosophical investigators the sense to perceive the real difference betwixt unskillful chemical realisations, erroneous mathematical formulas, unnatural philosophical definitions, and ideal impressions from Divine emanations, then many untenable doctrines might have been avoided. One great philosopher wrote that the living mortals never fully understand the workings of natural causes and effects until they thoroughly know the nature and cause of electricity; that is as much as saying when mortals get learned enough to actually comprehend the divine essence of omnipotency, with every operation of Nature in detail, then they may show how such a worldly substance as gold might be constructed; at the same time most savans appear to forget, although man may know every essential property Nature displays, but never have the art to properly sever or aggregate such elementary principles to those mundane informations Nature perpetually produces, simply because men can only glean together this or that, without the ability to prolong the other, and most indispensable, power requisite to organise all natural transformations—time. When mortals can condense a thousand years to one day, then they have the power at command to chemically and geologically transpose all earthy forms; never otherwise. Therefore, in respect to the accumulation of veritable gold, it can only be gleaned in the first onset from natural sources, as there never can be one solid particle made by any artificial process, except from where the golden essentials are concealed. So well aware of such an indisputable fact were the primitive alchemists, that no mortal can show one positive proof that any of those primordial savans ever dreamed of extracting the precious dust from any matter but what contained the actual items they were in search of. Neither do any find the original theory of the transmutators to be otherwise than to know how to separate from certain minerals or metals every portion of the precious ingredients that might have been in combination with the substances acted upon. Then, since mankind can only usefully apply their time and talents in secondary causes to realise secondary effects, only men of ideal thoughts would ever dream of attempting to procure by mechanical methods what Nature alone can engender; while some folks generally confine their abilities to processes, and operate on those primary essentials that constitute the natural basis of their present requirements, leaving the imaginary discovery of great profits to those erudite schemers below, who vainly imagine they know more than the gods above. It was only when impostors and ideal enthusiasts began to confuse genuine sciences the living got humbugged by their self-interested schemes and plausible theories, which race of worldly-minded creatures is not yet quite extinct, if printers' devils mark the truth. To speak more plain to the present point. No amount of human sagacity can ever produce one grain of pure metal from any series of manipulations, unless the natural elements of such metal are in some of the materials operated upon. All that man can do to enable him to show the world he has found out some method to produce the golden scales, is to gather those compounds in which the components of the precious metal are associated, and from those only can he abstract and solidify the primary essentials. Then, those who can chemically extract every auriferous deposit doth all human wisdom can do in re-creating man's golden god from the shades below to tinge earthly forms above. Since the first class of scientific investigators, for their superior abilities, were very properly denominated all-chemists, the present generation of experimentalists may be appropriately classed as half-chemists; while one-half the human race fancy they know somewhat of the mystery of the chemist and chemistry, consequently, by the same rule of three, some future generations will be considered non-chemists, as the first of all sciences will at last become so common that none will have any special knowledge of such matters over others, simply because every detail concerning the nature and appliances for mutual requirements will constitute the daily routine of all manipulations; hence, when the living get universally learned, by ferretting out and watching all the secret workings

of Nature, they will become too wise to be able to live any longer, because it is not in the general constitution of man to live in a state of non-excitement, or long in mutual harmony with each other in a state of universal equality.—Oct. 16.

G. F. GOBLE.

INVENTORS' ASSOCIATION.

SIR,—As in the *Mining Journal* of Saturday you have inserted a letter from a member of a proposed Association of British Inventors, urging all interested to join this new society, perhaps you will allow me to remind your readers that we have still on foot the National Patent Law Amendment and Inventors' Patent Right Association, which did so much for Patent Law amendment in 1851 and 1852, and that it is not a society restricted as to its members in any way; that it is ready to commence active operations as soon as any good opportunity shall occur; that it is not in connection with any trading company or speculation; and that its subscription is but small. I shall be glad to afford information to anyone wishing to join this association.—156, Strand.

F. W. CAMPBELL.

ASSOCIATION OF BRITISH INVENTORS.

SIR,—I fully agree with the remarks of a member of this proposed association, that it is high time men of genius and intelligence, distinguished as inventors and patentees, should begin to act in concert, on the principle of self-defence, for it is evident the enemy is at their gates. A committee of the Mechanical Section, appointed conjointly by the British Association for the Advancement of Science and the Association for the Promotion of Social Science, recommends the constitution of a special tribunal, assisted by scientific assessors, to sit in open judgment upon all inventions previous to patents being granted. Surely inventors have enough to contend against without being subjected to an ordeal of so objectionable and un-English a nature as that of submitting the fruits of their brains and the labours of their hands to a tribunal of schoolmen and dabblers in physics, whose ideas or interests, as experience teaches, would be opposed to the recognition and adoption of new truths. Did the sapient members of this committee, in the course of their labours, take into consideration the difficulties placed in the way of finding a judge so profoundly versed in the sciences as to be able to approve or condemn an invention before it is publicly tested in a practical manner; or a body of assessors equally learned and, at the same time, so truly disinterested as to mark by their countenance and approval inventions and discoveries that in success might seriously affect the interests of one or other of their members? Did they consider for a moment the multitude of forms and objects that would be placed before them, embracing in aggregate the entire range of social science,—the *ne plus ultra* of mechanism, the philosophy of light, heat and electricity, chemistry, architecture, the arts and manufactures, mines, mining, steam-engines and steam-gunnery, and the thousand-and-one objects brought in panoramic view before them, and on many of which judgment could not be pronounced until the invention, brought to perfection at great cost, could be practically tested? Let them look to the present working of the system, and say how much encouragement is given to inventors beyond what they are, at least, entitled to. A poor man makes a discovery in mechanics, or in the application of steam. In the full flush of triumph he appeals to the man of science, whose name is well up in the world; how he is received, the most brilliant inventions of the past, with few exceptions, fully and painfully testify. Brownstone and disheartened for the moment, he retires from the fortunate man's presence and seeks among men of less pretension the means wherewith to secure the patent and bring it into use; and in doing this he is compelled to knock at many a man's door before he finds one whoosters the appearance of the invention or the promise of success him to consent to share in the advantages of the discovery. Is it not right, it is not reasonable—that the man who thus by slow and tortuous processes steadily advances link by link in the chain of his ideas until the beautiful superstructure is completed, who in success has still to overcome almost insuperable obstacles before he can secure his patent and bring his invention into practical operation, should have the fair reward of his labours secured to him? It is not a question of philanthropy, but simply one of pounds, shillings, and pence, that the use of the invention may be restricted for a time, in order that the patentee may derive benefit in reaping the fruits of his ingenuity, skill, or intelligence. Such was the intention of the framers of our Patent Laws. The happy idea that leads first to a long train of thought or mental calculation, and finally to the development of a principle, the knowledge of which tends greatly to benefit his country or the world in general, is as much that man's property as freehold land, or a certain sum of money is to him who possesses it. So the Government thought when they gave William Armstrong a baronetcy and 30,000*l.*, and a further position for accumulating wealth. He could have carried the invention abroad, but bought up it became the property of the state. Were society properly constituted, and science perfect in its varied departments, such might more frequently be the case,—pensions or pecuniary rewards being given for inventions of a more peaceable character, and improvements tending to advance the arts, or to administer to the requirements of society at large. The self-constituted committee on the Patent Laws, however, responding to wishes and feelings entertained in highest quarters, would have it otherwise. They would force the inventor before a tribunal of thirty members, five of whom, appointed by the Commissioners of Patents, are to be selected. Before this learned body the patentee is to appear, and then and there in open court communicate his discovery to the world at large, with the probability, after he has disclosed it, of being refused a patent; the melancholy satisfaction being offered him to come again another day, and pass through the same ordeal of examination and cross-examination, or to appeal to the Court of Exchequer, and ultimately, if fool enough, to the House of Lords. In the meantime his invention, being made known, has become public property. Again, the committee approve of the principle of compelling patentees to grant licences on terms fixed by arbitration; in other words, they would open the door so widely for competition as to place the inventor entirely at the mercy of every firm that chose to apply for a licence, including those reckless enough to dishonour the invention and destroy the trade. I certainly can see no principle in using a public pressure against the patentee to his almost certain destruction. His patent right being conceded, the *modus operandi* by which he conducts his business and extends the use of his patent ought to be left to himself. As well pressure be brought to bear upon the London banker, to compel him to open certain branches of banks in the country; or upon a Manchester cotton manufacturer, to establish a factory in London. It is against the spirit of our free institutions to make inquisitions into a man's mode of doing business, or to compel him to dispose of his property against his consent. There cannot be a doubt but a great and powerful movement is now being made to invade patent rights, and to make the ideas, conceptions, and discoveries of superior minds common property, under the fallacious plea that the gems of invention and discovery are, by the operation of the present patent system, so hidden in rubbish as to be shorn of much of their public utility. Patentees, in other words, being so blind to their own interests as not to know how to make the most of their own inventions; but, selfish and inactive, they keep the fruits of their discoveries as much as possible to themselves. One really would think that these utilitarian busybodies are offshoots of the Robert Owen school, who look upon everything as common property; otherwise they belong to that class of amateur philosophers who contribute so largely to the entertainment of the British Association at its annual gathering, and finally to the waste-paper basket, the great receptacle for second-hand ideas. Patentees and inventors will do well to be on their guard, and by a timely and well-knit union among themselves gather strength for the approaching conflict in the Palace of Westminster simultaneously taking place with the opening of the Great Exhibition for 1862. It must not be forgotten that in the last 12 months a proposal was made to the House of Commons, and that it threw all patents open to the world. Every patentee, every inventor, every scientific man who appreciates and supports invention and discovery, should, as in duty bound, co-operate in giving force and efficiency to the proposed association.

Oct. 17.

A BRITISH INVENTOR.

THE ABUSED PATENT LAW.

SIR,—The greatest good to the greatest number" is now the prime maxim of enlightened statesmanship, and from this point of view it is that I think we should endeavour to look at the Patent System; hence I feel anxious to show that the granting of a temporary property in new and useful inventions (and here it is to be noted that this property is not to be bestowed on things not new and useful), like the right of personal appropriation of the results of manual labour (a right which is seldom challenged), incites the mind efforts of man to bring forth new and useful inventions, and, to the results of such efforts, the ultimate effects of which are the extensive diffusion of the necessities and comforts of life, so that even the common day labourer may command what might otherwise be reserved for the exclusive use of the prince,—a desideratum even now approximated to, as our cheap locomotion, newspapers, houses, clothes, and furniture, when compared with these things as existent in the days of our forefathers, will abundantly prove, to say nothing of the electric telegraph, photography, and other things wholly unknown to the ancients, though mere everyday utilities with us. Impressed, as I am, with the truth of this view of the Patent System, I cannot help viewing any change in the law which shall weaken this system as one of inducing the production, publication, and development of new inventions as an injury to the country,—aye, to mankind at large. Indeed, I am prepared to support and defend such properties, rather than press forward to break them down. Thus, I conceive it would be more advantageous for the public to favour even the man who re-invents and makes a commercial reality of what may perchance have been used by one or two persons in some obscure corner (who possibly intended to keep the thing a snug secret), but hath never been disseminated through the land in any extent, for even this man gives the public what it had not before,—the expanded use of what was before all but unused; even as there is a wide difference in economic effect between the scientific toy and the scientific utility of everyday life, although in many essentials they may be the same; and it is for results that the public are interested in paying, and not for mere efforts. And like as it is thought desirable to authorise the enclosure and distribution as properties of our common lands, so might it not be thought desirable to give a property for a limited time in that which, although not altogether unknown, has hitherto remained in a state of commercial inactivity, for the benefit to the public generally is the same, whether the thing be absolutely new or only new to them. Of course, this phase is not the one most pleasing, and is not to be acknowledged without qualification or reservation, but it is a sound practical point nevertheless, and was touched upon by Lord Brougham in his Act of 1836, by enacting (sect. 2) that if some other "person had, unknown to the patentee, invented or used the same, or some part thereof, before the date of the patent, the Privy Council may confirm the said letters patent, or grant new letters patent, provided such invention, or part thereof, be not publicly and generally used" previous to the patent, and that all parties interested shall have had opportunity of opposing the confirmation. But narrow and erroneous views of the effects of patent rights have hitherto prevented the Privy Council from giving inventors and patentees the benefit of this enactment, only one case it seems having been favourably entertained by them. The enactment ought, perhaps, to have been guarded by making this confirmation only for a term much shorter than the fourteen years given to strictly novel inventions, and not grantable at all for things of but small utility, or not requiring great outlay to bring into a merchantable state, and by recognising the rights of the former users *in petto*, if need be. For it should ever be borne in mind, how much soever it may be unpalatable to inventors, that patent rights cannot be justified for things wholly insignificant, nor if of very long duration, since it can be maintained that an inventor is, to some extent, an anticipator of other ingenious men, which will be more and more likely to be the case as the amount of novelty gets less and less, and, therefore, his patent right should have relation to the advantage which the public derives from getting the invention at once, rather than having to wait an indefinite period for it, without any guarantee they will ever get it at all. And if this be so with an inventor of a real novelty, it must be truer still of a re-inventor, who is doing only what some have done already, and all might have copied, though they did not.

The Patent Laws are for the public benefit, and I am persuaded they do, imperfect as they are, benefit the public, although it may be somewhat doubtful whether, as they

now stand, they benefit investors; but I trust I can suggest some amendments, although I find I have, I fear, no claim to occupy further space in your present Journal, which may render these laws more beneficial to the public and to investors.

Faint Office, Strand, Oct. 10.

F. W. CAMPIN.

MINE AGENTS, AND PASSPORTS IN SPAIN.

Sir,—On my arrival in England, on Oct. 2, from my recent visit to Spain, I observed in the Journal some remarks by "Mine Agent," in the north of that country, defending the abominable passport system as practised there. It is strange that Englishmen can find so little there to interest them. I should have thought their time might have been better occupied, even in communicating with their countrymen at home on subjects far more engaging,—the general features and prospects of the country, to wit,—rather than defending their crude and abominable laws, which are the curse of the country. On my first journey I visited Vigo, Oporto, Lisbon, Cadiz, Seville, Huelva, Tharsis, and Laguna, crossing the frontiers to Lisbon and Oporto, often branching off from thirty to forty miles on the road, and twenty miles beyond Oporto. I was detained at Oporto a day, and again at Lisbon another, to get my passport out of the police-office, where I had to pay smartly for it, and the guide and interpreter. At Cadiz I was five times at the office, and at ten o'clock at night had to look up the principal officer, or wait another day. On reaching Lisbon, where there was a boat for Oporto in four hours, I had to procure a guide to the police-office, where I was told my passport was missed, and could not be got in time for the boat. When we arrived at Oporto it was the Feast of St. John, and the office was closed for two days. On my last journey I took my passport in London for Portugal. At Oporto I had to get it signed by the Spanish consul before I could go into Spain; it was the king's birthday, and no office open; when I got admittance a charge was made of 12s. 6d., which was paid, and a permit was issued, after a long wait with the amount stated on the passport, which I had to pay. From thence I started for Cumina, where I took the boat for Tuy; on landing they charged me 5s. 6d., and on leaving the station at the water-side I was overtaken by a policeman, by whom I was detained until I had paid 2s. more; this landed me at Tuy in Spain ten minutes too late for the diligence. My fellow-travellers (no mean persons, having had three interviews with the king within a month) were charged 6s. each on their arrival at Tuy, which they had to pay, or remain in the boat all night; at the office they also paid 5s. 6d. each. I then they escaped the policeman and his 2s. charge, who thought, I presume, 12s. was sufficient for coming on shore. On arriving at Vigo we made it a subject of complaint to the British consul and vice-consul, who were both very obliging, and sent a person with us to the police-office, when they promised to see it arranged. Having to go back to Orense, my passport was signed free of charge, the consuls giving me letters of presentation when I was detained, which passed me free of charge or comment. On my return to Vigo by diligence my passport was again taken; and I was detained there three-quarters of an hour for my passport, when I had 2s. more to pay, together with 1s. to interpreter, whilst many others were waiting to be paid. On arriving at my hotel I found the *Tayus* had arrived, and my two English friends in a fix; they could get no bill with figures on it, nor could they understand what they had to pay. I accompanied them to the consul's office, when he ordered a person to return with us, who got the charges reduced about 50 per cent. We then got on board as soon as possible, leaving all the overcharges at Tuy until our return. I think what I have stated quite sufficient to prove how irksome is the passport system, even where there is an English consul. It is a disgrace to the British Government their appointing consuls in most of these places who cannot speak a word of English, and where an interpreter has to be paid for communicating your business. I ask the public if there are not thousands of the active sons of the hard-pressed British taxpayer who would gladly accept these appointments, and pay an interpreter until they were masters of the language? Then, I say to those who have the power of making these appointments they are in duty bound to make their selections at home.

I will next direct attention to "Mine Agent's" remarks on the mineral deposits in Spain, where I have no doubt deposits are to be found that will pay, under a reformed system of management; but it must be borne in mind that it requires double the quantity of ore to be raised there that it does in England to pay; and I must confess it does not speak favourably for the Spanish mines when an Englishman who has been there five years, and is master of the language, selects a small lode that can scarcely pay its way. He has invited me to visit him, but has not given his name, or where he may be found. A friend of mine at Vigo gave me his name, and an account of the mine; but on enquiry at Pontevedra could get no information as to where I should get the diligence, or if there was any certainty of a passage to England from Comina. If "Mine Agent" will give me this necessary information, through the *Mining Journal*, or by private letter addressed to that office, I shall be sure to call on him on my next journey, which will take place in about a month or six weeks; and if he can show me anything worth working, I can find parties sufficient to carry it out. I have two objects in view in visiting Spain:—1. The geological formation of the country generally.—2. If it contains sufficient mineral deposits to pay under all circumstances.

I shall be prepared to take one or two hard-working young men with me, who may be desirous of learning geology and mining practice, as it may be of great value to now that geological geology and the plutonic theory are on their last legs, and that a class of geologists will have to take the field, and establish laws founded on facts and not on hearsay, as hitherto.—Oct. 15.

NICHOLAS ENKOR.

THE GEOLOGICAL FORMATION OF THE EARTH—No. V.

Sir,—I do not believe there exists one-fourth of the sedimentary rock that is generally supposed. I am ready to admit the mountain torrent and the ocean waves produce what would settle down and form a sediment, but what is it in comparison with the rocks that form the globe? A mere nothing; not sufficient to form a layer over the earth's surface of 1 ft. thick. Then I may be asked, how come the fossils to be disseminated through such a vast thickness of the earth's crust? My answer is, the gaseous products, from the changes taking place in the rocks below, ascending to the surface of the earth, become crystallised about whatever is lying lifeless in the bottom of the ocean. Were there ever to happen a great convulsion of nature, as has apparently happened before, and so distorting the configuration of the earth that the bed of the sea should become dry land, and above the water surface, I believe that man, and even ships and various other deposits that have taken place in the sea, would be found interspersed within its crust, imbedded in crystalline and igneous rocks, and not sedimentary, further than a small portion of sand, and the fossiliferous lime, which is the mountain lime, with the thin sands of shells imbedded in it. Will any one argue for a moment that these mountains are all sedimentary? Break and examine the crystals in the stone; it will at once be found that it was all formed under a law, when the waves rolled over it. And why did it form so much time where it is now found? Because, I say, there was an abundant supply from nature about the place where it is now found. Again, look at the salt rock; why did that form where it is now found? Because it abounded from nature near; and these arguments apply to all rock formations. I may remark that not one in a thousand of the inhabitants of the earth are aware that there is a law of decomposition continually going on in rocks at about the earth's surface; and some of our most considerate and best informed on such subjects believe every rounded pebble-like stone to be water-worn by continual motion, as the stones on the sea shore, and are apparently not aware that every stone from nature assumes the oval form. It matters not how hard the substance, even granite becomes the same; witness it on every granite hill. A cube of lead, if buried in the earth, will assume such form in 15 years; and so will every rock according to its law of decomposition. Some of the apparently hard rocks decompose fast. Even the tin streamers will say—See how round it has been washed! But they all remark that the tin is more pure than mine tin. Why? Because the substance with which it was contaminated is dissolved away. The tin is going also to be dissolved away. Were it not, where did the tin come from that entered the elk's horn and dispersed the rock? This ought to be ample proof that such does grow; and with such distinct proof adduced, who will stand forward and argue that one rock grows whilst the other does not? Anyone examining a fossil will discover that the one living fish is gone, and the shell filled with stone of some kind; and in almost every case contains sulphurous matter. The muddle must have grown there, and allowing that the fish contained a portion of sulphur, it could not have been to the extent that is usually found in the fossil. There are men to be found, in opposition to every new idea that may be propounded, who would say the fish is petrified; this I am not bound to believe; but I am bound to believe, when the lime that was in the elk's horn is gone, and substituted by oxide of tin, being an entire change of substance; and, for what I know to the contrary, all the others may be an entire change of substance likewise.

Many geologists, I have no doubt, have visited Watchet, on the north coast of Somerset, if not, it is worthy of a visit; and when there let them walk a quarter of a mile up the shore, they will find as beautiful slate rock as is to be found in England, with as good cleavage and cross-heads as is to be seen in any roofing slate quarry, but the slate is apparently too young, and not of sufficient strength for roofing purposes. In that slate are to be found cross-heads, and in some cases, as I have seen, the cross-heads are from 1 foot to 2 feet 9 in. over; they all lay on the flat, and every cross-head in the slate cut up the shell and fish as perfect as if a saw had been passed through them; the joints have an iron appearance, and are full of sulphur. With this slate there is neither pebble or sediment from the ocean settled; it is clearly a crystalline rock, formed by a gas from silica, alumina, lime, iron, water, &c., and not a sedimentary deposit caused by the wafting ocean. Quite the contrary, every tendency is to show it is crystalline rock forming, the upper layer having had the appearance of highly elastic clay, precisely as we see at Seend, under the iron ore. I could enumerate such instances as these that prove a direct change of substance, and not a mere change of form. I will now notice the three classes of lodes the earth contains, the first running about north and south; to the practical miner well known to be of a distinctly different class to those running east and west, and in which the really practical man if sent into a mine blindfold and without a compass would know the difference. At Devon Burra Burra, on which 10,000,000 was spent, I saw at a glance on first entering the mine that they were working near a north and south lode, which they disputed, maintaining it was east and west; a strong argument ensued, and to decide which the dial was fetched from Australia; I need not detail the result; enough that the level was at once abandoned, although previous to this the mine had been inspected by me, I will not say twenty North Countrymen, but, off and on, about that number of theoreticians, most of whom had near half the alphabet affixed to their names. Of these men not one of them knew the difference between a north and south and east and west lode when underground; in fact, neither does one of them that I have met. Then there is the third class, lodes commonly known as elvan courses (plentiful in Cornwall), which nearly always come, or thwart, the east and west lodes, and the stratification of the rock at times produces a little tin. It is very uncommon to see any of them stratified to the rock, if so they are not to be detected on the surface, such ore is in the middle of the lode. They may occasionally make iron in the lodes shall not. These three classes of lodes, and the way in which they are named, which I intend may be called the veins, arteries, and ligaments of the earth, just as in man.

The anatomist has the opportunity of dissecting man, and can trace the veins, arteries, &c., to their source, and finds everything work in harmony and conjunction with each other. Whilst he is puzzled to connect them; so with these lodes in the earth; it is practically known they work harmoniously together, but man cannot trace their source, neither can he divine the cause of such harmony. Taking the north and south lodes first, they may be described as of two classes, one appearing to be composed of masses of silica, slightly combined with other substances, which were evidently brought up from below, whether from the centre of fire (so freely described by the Platonians), similar to the blood passing from the heart of man, I will not now attempt to discuss, now, or wait until I attempt to describe these theories; but in a class appears clear these lodes are the conductors of the earth, the passages for all gases, water, &c., electricity, &c. Nothing in nature could work without these lodes; they appear to be a readjusting power, seldom shifting each other, but in 19 cases out of 20 shift all others. There are many who would be disposed to raise a mountain of arguments to prove a north and south lode being shifted by a east and west one, but these arguments are shadows. It is not the main lode shifted, it is a branch shifted by a east and west clay lode, and is seldom more than a twist. These lodes are not productive of minerals if other lodes running south-east or east are near; if not, and the country is saturated with ore in solution, it sometimes settles down extensively in these lodes, particularly lead, silver, and iron, but it may be generally noticed that something is out of place when the like happens. The other class of north and south lodes consists of large channels of apparently alluvial clay, but the fact is four-fifths of it is silica in a placid state. Nothing of a rocky nature grows quicker than these clays, in which at times are found silver, lead, barytes, fluor-spar, and sulphur. These lodes traverse every part of the globe. In coal mines they are termed faults, often shifting the coals and stratifications for a thousand feet. Coals being in nearly flat beds are shifted by these lodes up or down, and are termed up or down throws. When the stratifications are nearly perpendicular the shifts are right and left, so also in east and west mineral lodes, where they are termed right and left-hand heaves.

Top of these lodes is east and west, at an angle of from 10° to 20°—say, an average of 15° from the vertical line. Sections of these dips, which I have made myself, I invariably take with me, and I never yet met the man who can up or refute them. Lodes taking this angle never approach the centre of the earth, but of necessity keep the periphery, leaving the axle protected, as the interior of an egg is protected by the shell. Every lode may be said to have its connection with the heart, as the veins in man. They all pass the same distance in the earth—in fact, would be equal or uniform in size to each other as the plates set out at a dinner table. If their inclination were as generally supposed, there would be no law or system to govern them; they would not even draw their nutrition from the same source. Notice every fruit (approaching a spherical form) that grows; it is easy to discover that they are all governed by a natural law, which, even if interrupted by the penetration of a worm or insect, and the side so penetrated becomes withered. Its law is perfection, and cannot be interrupted without causing disarrangement of the system. These globular fruits, as man, are only emblems of the earth's laws and formations; and where these volcanoes exist they are not feeders to lodes, but, like the worm in the apple, they destroy them; and lodes with paying ore deposits are not found near. Still they may have their good qualities or good effects, as they appear to be of the working laws of nature. I am not a little surprised to find that there are so many men disposed to argue that two north and south lodes dipping east at (say 22½°) are parallel. They appear not to be aware that parallel lodes are not of the same north to dip, the fact is, parallel lodes cannot exist to any extent. Two lodes might be found in a mine nearly parallel, but then they would not be at the same angles. To this I will return again when treating on faults or heaves. In my next I shall briefly refer to east and west lodes, and ore formation.

NICHOLAS ENKOR.

SIMILARITY OF LODES.

Sir,—There appears to be an erroneous impression prevailing the minds of many respecting the benefits to be expected from having a mine situated in a good district, or surrounded by dividend-paying mines. Wherever the mine is situated, it is of no avail unless there is perfect similarity in the strata, bearing, and general composition of the lodes, which those who are unacquainted with mining should be particular in enquiring for. I will briefly notice a case or two in support of the argument. I have advanced. I will take Camborne and Illogan mining district as an illustration, although many others would answer the same purpose. Carn Bra, Tincroft, Cook's Kitchen, Dolcoath, Stray Park, Camborne Vein, and West Stray Park, are all on the same run of lodes, and have all at some time or other been immensely rich, with the exception of the latter, and this mine will, doubtless, eventually prove equally as productive, as it has the same elements of success. A little further north is East Pool, South Croft, and South Roskear; all of these are on the same lodes, and have at some period been very rich. Still further north is North Croft and North Roskear, which are on the West Seton; the two latter, although not on the same lode, are situated in precisely the same strata, and traversed by similar veins. I will only refer, as another illustration, to Wheal Buller, Basset, and South Frances district, which is a run of mines too well-known to require comment. There are, however, lodes sometimes to be found a little to the east, west, north, or south of good dividend-paying mines, but not having the same characteristics are never found to be profitably productive. A run of lodes of this description has been worked upon to a considerable depth in the south part of Tincroft, the south part of Cook's Kitchen, the south part of Dolcoath, in Carn Camborne, and still further north. Considerable sums of money have been expended in each of the mines, which allusion is made, but as yet in neither one has there been anything found to pay the cost by a large amount.

From these and similar evidences that might be adduced, it is evident that in order to ensure success even in a good mining district it is indispensable that the lodes should be imbedded in similar strata, and their general composition and bearing should be the same as their rich neighbours, otherwise it might as well be a thousand miles off. But when these elements of success are met with the adventurer should not be disheartened, even if for awhile his expectations are not realised. But those who invest or are about to invest for money, in mines that are puffed in consequence of having rich neighbours, would do well by enquiring from some reliable source whether or not they present those features that I have described.

MINE AGENT.

Camborne, Oct. 12.

THE COST-BOOK SYSTEM.

Sir,—In the Journal of October 5 are certain observations upon the advantages of mining companies conducted on the Cost-book Principle, and, also, certain speculative theories as to the probable legal result of the *questio recata*, relative to a purser's right, or otherwise, to register *bona fide* transfers of shares in the cost-book of a company whilst there are any liabilities in existence. Permit me to call attention to one or two decisions of our courts of equity, and the dicta of learned judges on the Cost-book Principle, and, by a parity of reasoning, on the question which is now being ventilated amongst the readers of your useful columns, in relation to the Pelyn Wood Mining Company and the recent proceedings of its purser. With reference to the Cost-book Principle, Sir John Romilly, in the *Master v. Miller*, 10 C. B. 378, in the 23d volume of Mr. Beavan's Reports, p. 378 (in the *Bottoms United Mines Company*), observes as follows:—"The principle of Partnerships of this description have been brought before the attention of the Court very frequently of late years, but what is included in that expression has never been, so far as I am aware, defined. It is extremely vague, and I concur with Lord Justice Knight Bruce in saying that this is no recognised principle of partnership which, in the absence of evidence, the Court is bound to understand. It certainly does not depend on immemorial custom, the institution and practice being comparatively modern." And in *Hawkins v. Case*, 2 Kay and Johnson, p. 263, Vice-Chancellor Sir William Page Wood, having decided that Mr. Hawkins was, under the circumstances therein stated, a contributory, said, "I decide this question without taking notice of any rule peculiar to companies formed on the Cost-book Principle. Such rules may be well known in the Statutory Court of Cornwall, but not here; and where it is intended to place reliance upon rules peculiar to that system, such rules must be proved." Again, in *Fenn's case*, 4 G. & G. 295 (in the matter of the Pennant and Craigwen Consolidated Lead Mining Company), Lord Justice Knight Bruce observed, "This mine was represented to have been one worked on the Cost-book Principle. That is a term which I am not aware that it is my judicial duty to understand in the absence of evidence." But Fenn's case is a case of partnership, which, by analogy, may be applied to the *questio recata* in Pelyn Wood. In that case, it is held that Mr. Fenn could relinquish his shares whilst there were liabilities of the company in existence, and even shortly before a winding-up order was obtained, and he was also allowed his costs of suit—*a fortiori*, the case of a sale and transfer to a third party, which is the question now at issue in Pelyn Wood. Fenn's case was decided on the construction of one of the company's rules, and Lord Cranworth, then Lord Chancellor, said, "I think, too, as was suggested by the Lord Justice Knight Bruce, Mr. Fenn might have released himself from all liability by selling to a third party, and that his partners could not have objected to his taking that course. Then, the object of the rule is to enable the partner, by a surrender, to do per se, which he could otherwise have done per obliquum." One of the rules of the Pelyn Wood Mining Company provides that a transfer may be made at any time on payment of all calls then owing, and that such transfer shall be registered by the purser in the cost-book, and nothing is stated in that rule as to the company's liabilities. But another rule provides that shares may be abandoned on payment of a proportionate part of the then existing debts. It will, therefore, in my opinion, require a very forced construction to read these two rules together. With reference to the Cost-book Principle, I opine that, if it is to be of any advantage, it should be strictly identical with its name—ready money system, and not by rather doubtful calls, to provide for accruing liabilities, which such liabilities ought not to be allowed to accumulate, or remain in the mine undischarged. I have recently seen a claim by a person alleging himself to be a creditor of the Pelyn Wood Company, in which the first item is 8d. odd for horse work in November, 1859, and all the other items are for services rendered in 1860. Were the works of the company in full operation in November, 1859?

P. R. C.

Liverpool, Oct. 10.

THE COST-BOOK SYSTEM—TRANSFER OF SHARES.

Sir,—Can any reader inform me what are the nature and value of a purser's indemnity to a shareholder in a mining company on the Cost-book System? It is not an uncommon thing for a shareholder (in the Pelyn Wood Company, at least) to be threatened by the purser that if a call, or proportionate amount of existing liabilities, be not paid by return of post the shareholder's name will be given to some creditor pressing for his claim. The call is paid, and then the purser (the creditor's claim having already been made out) offers to compromise the latter if the shareholder will consent to pay another sum, which he (the purser) alleges to be his proportion of the company's debts, and also to give that shareholder an indemnity against any further claim. Now, the nature of any such indemnity seems to me to be rather doubtful, and its value more so; for how could it, unless confirmed at a meeting of the company properly constituted, or the purser purchased all the shares, in any way operate to prejudice the other shareholders? And how, in either event, could it defeat creditors? If any more astute lawyer than myself can answer these questions, so as to enable me to attach more importance than I am at present able to concede to the offer of such an indemnity, I shall feel obliged for his opinion. And if you, too, would kindly define, in your columns, the legal limits within which partnership operations on the Cost-book Principle may be carried out, and the true legal position of the purser, and also his authority in relation to the shareholders and creditors, you will supply a defect which, it must generally be admitted, still exists. The indemnity alluded to seems to me to amount to this,—If the shareholder pays the sum required by the purser, then the purser will do all he can to protect him against creditors,—that is to say, he will not give his name to them; or, should any creditor, by inspecting the cost-book, or by some other means, find out such shareholder's name, then he (the purser) will tell that creditor that such shareholder is not worth suing, and that any legal proceedings taken by him will be at his (the creditor's) own risk. This, therefore, is an indemnity the nature of which is clearly tainted with fraud, consequently it is void. I have no objection to my letter of the 10th inst., in regard to Fenn's case, and the point thereby decided. In Mayhew's case (22 the Pennant and Craigwen Consolidated Lead Mining Company), 5 G. & G. 295, Mr. Knight and Gordon, p. 297, being a case of transfer, and not abandonment of shares, the objection taken was that the transfer was not regular or complete, inasmuch as it was not in strict accordance with the rules of the company; but that objection was overruled, for, as observed by the Lord

Chancellor, "Fenn's case and this stand upon exactly the same footing." It was accordingly held that the "transferor," and not the "transferee," was properly placed on the list of contributories, and that he was liable for the debts of the company incurred before the transfer. In two more recent cases, decided by the Court of Chancery in 1857,—*Birch's case* and *Lofthouse's case*; the former a relinquishment, and the latter a transfer of shares (see 2 De Gex and Jones, pp. 10 and 69, in the matter of the Welsh Potash and Copper Mining Company, Limited),—the results were precisely similar to those in Fenn's and Mayhew's cases; and in Birch's case I may observe that it appears from the report thereof the purser had actually refused to strike Mr. Birch's name out of the cost-book. I trust that the authorities referred to by me may be of some use in deciding the question at issue in Pelyn Wood.

P. R. C.

Liverpool, Oct. 14.

SLATE QUARRYING IN NORTH WALES.

Sir,—I read in the Journal of last week, with a great deal of interest, your correspondent's remarks as to the right and wrong management of slate quarries. His letter comes at a very reasonable moment, when the fever runs high for speculation in slate quarry companies; the public need a caution, or they may have palmed upon them properties of no value, except upon paper, but to fill the promoters' pockets, assist the gamblers' speculations, and find employment for a host of engineers, miners, and minor stars, that generally get entangled with these concerns. That the present moment affords a rare opportunity for embarking in this trade no doubt can be entertained, if entered upon in a spirit of honesty, the selections made judicious, and the management of the right sort. But times like these are times of danger to the public: the schemer embraces the opportunity to catch the ignorant by his highly-coloured prospectuses, his advertisements, and promises of immediate dividends, which cannot be realised, and have no foundation in truth. I fear some of the new concerns that have already been started by the public are of this nature. Your able correspondent has certainly given us a very pretty specimen of right and wrong management; his tale may be somewhat coloured, but I believe the main features suggested in his letter may be traced to the causes he points out—the employment of engineers, miners, and a host of others, who know nothing of the business, instead of looking to the sound, honest, practical quarryman as his guide. Slate quarrying and slate making is a business that must be learned to be understood; and I should have a far better opinion of a report given by a plain, honest working quarryman than if you selected me the highest authority from the Geological Society, with his plans and sections stained all the colours of the rainbow. It behoves the directors of public companies to look well to the property they bring before the public; their moral responsibility is great; they should have the best practical opinions that can be obtained as to the selection of the property, and its adaptation for the purposes they propose. If it has not been tested it should be, by driving a level across the vein, or any other means that will test its character, quality, and extent. Until this is done no body of directors are justified in giving their names in support of such undertakings, more especially where a high charge is made by the promoters for their interest, as the public have a right to know they have value for their money.

If the public will but take a little trouble before they embark in these concerns, make a few enquiries as to the standing of the parties who are the chief promoters; if a spring from sources that may be denominated the hot-bed for new companies, where the machinery for puffing is complete, in the shape of circulars, journals, writers, &c.; or if the reports come from the right quarter, and the machinery for management of the undertaking is something like what is indicated above, the public may be able to come to something like a safe conclusion that may help them to avoid those concerns that do not bear the impress of honesty and good management.

I will, Mr. Editor, say in addition that I by no means wish to discourage any legitimate undertaking; on the contrary, I would hold out every encouragement to capitalists to seek investment here: the present time and circumstances offer every inducement for them to do so; the demand is great, and likely to continue for years, for the reasons I have stated. There is ample room and demand for double the number of slate quarries, and double the present supply. The large and wealthy quarry proprietors are now reaping an enormous harvest, as the price of slates is about 25 per cent. higher than it was two years ago. The object of your correspondent, I am sure, has been to drop a word of caution to the unwary and the unsuspecting, for where any goal is to be done the adventurer and schemer are sure to drop in, and try their hands at a little spec; their object, however, is not investment, but to get up a company under false colours, pocket the premium, and, as is generally the case, leave the concern in the hands of others, often to fight their way through the Court of Chancery, if not to make the best arrangement they can with the unfortunate shareholders.

Should these remarks and cautions be found useful to any of your readers who are desirous to embark in property of this description, I give them freely and honestly as the result of my experience, after many years' connection with slate quarries in North Wales. Gracechurch-street, Oct. 15.

AN OLD QUARRY PROPRIETOR.

MINING IN FLINTSHIRE.

Sir,—Having in my last described the Talacre Mines, I proceed in a southerly direction, and suddenly fall upon a fine mineral range of unexplored country, in a line somewhat as laid down on the Ordnance Map, from Golden Grove through Plas Heaton to Glyn Castle, in the immediate neighbourhood of the village of Llansana, about two miles (croy fly) from Prystatyn Station. Upon examining the western portion of this range are first discernible a few weak traces of ineffectual trials for the western croppings of the master veins, which manifestly exist eastward, from the cropping of the coal. It may also be observed that the western country has in times past attracted the notice of speculators, whose funds would appear to have become soon exhausted, or who from mature consideration, aided probably by a little timely advice from the experienced miner, have thought it prudent to abandon their projects. The rock is here the carboniferous limestone, whose colour and consistency very much resemble the true bearing stone, but the veins are, as in almost every instance in this belt from north to south, veins of contraction, not having experienced any local disturbances or convulsions, the whole being brought up upon the great cross-courses an impoverished and uncongenial mass of lumber; the capacious escapes of the cross-courses, dislodging the gaseous explosives of the collateral parts, rendering them almost complete barriers to any process by which the lead has been deposited; and where great veins are found in this locality, they are in most instances charged with only a few of the vein substances, but in large proportions, and to the exclusion of the mineral. But on carefully turning attention to the eastern ground a very different state of things exist. Here are seen the massive and features appertaining to the rich mines, and the natural receptacle of deposits, which had not the facilities for their precipitation in the western portion (already condemned); and should the mineral in solution ever have found its way into these lodes of contraction, it has only been to pass through them, as a transit to more congenial influences, which have caused their further arrest.

The deep basin of chert, covered by the mountain shale, at the Talacre Mines will be found to be edging off towards the south, and I am inclined to think will here be found only a very thin covering, with but slight chances of great bodies of ore in them. Underneath this, however, are found strong beds of the Aberdare stone, for several years in thickness, lying upon the true bearing lime rock of Talacre. The country superficially indicates the existence of, at least, one main lode running in a north-west direction; and the surface undulation, caused by the top parts being broken and decayed, causing, as it were, a state of collapse, is so well-defined as to give more than ordinary encouragement for the outlay which would be required for its effectual development, and for which I think it would not be safe to calculate upon a less sum than 15,000*l.* In such instances much has to be done in discovering the lodes before machinery be erected, and a scientific system of operations can be decided upon. I could not discover any spot from which an adit level could be brought, except by a very expensive and tedious process. There can, however, be but one opinion amongst experienced miners as to the result of a sufficient outlay proving exceedingly remunerative; indeed, equal results to those of the other great mines, which have already been proved, might be confidently expected. And it is to be hoped that the royalty will be fixed on a liberal scale, to meet the requirements of the times, so as to encourage the enterprise of an influential and spirited company to take the matter in hand. I purpose going on to the Axtor and the Old Trelogan Mines in my next communication.

A FLINTSHIRE MINER.

Oct. 15.

THE NORTH HAFOD SILVER-LEAD MINE.

Sir,—I have no doubt that my adversary, "C. T.," exercises a sound discretion in determining to retire from the controversy he has so voluntarily raised. When Samson Carasco, disguised as the Knight of the Mirror, undertook to vanquish Don Quixote, and to lead him captive to his family, he did not take into calculation the inclination of his palfray, which by halting in mid career caused his rider to be overthrown, and Carasco himself was unhorsed instead of the Knight of La Manche, whom he went forth to conquer. We often think at the first glimpse something is very easy to do, which, when we come to the trial, proves either difficult or impracticable. It is a thousand pities that "C. T.," in declaring against me, did not choose the open instead of the covert system of warfare, as we are not in the habit in this country of extending much sympathy to those who fire upon us from the bush,—that is, I believe, the bushranger's mode of attack,—and we are content to leave it to the wild Indians and the gorilla chieftains. However, I am not without sorrow in reference to his complaint as to my making of a question a personal one, only I cannot comprehend how I can hurt the feelings of a shadow; if I had a substantial being before me the matter might be otherwise.

With reference to Sir R. I. Murchison, and Messrs. Sedgwick, Ramsay, and Smyth, of them I have nothing to say but what is good; their reputations for scientific acquirements are world-wide, and well and deservedly won. But I fear that Mr. Smyth, who has a goodly share of the humorous element in him, is now laughing in his sleeve at "C. T.'s" calamity, for our good will generally goes with those who combat fairly and upon the open plain. At any rate, "C. T." is entitled to some commiseration that he cannot call up any of his champions to his rescue. I am exceedingly obliged to Mr. Evan Hopkins, who has put in an appearance for me, and substantiated, better than I was enabled to do, the effect of the meridional feeding pores upon the lodes; this is all that I wanted. This fact being established, the rest of my statements follow as a matter of course. I have so frequently examined them myself, that I was certain my assertions could not be contradicted. If "C. T." would only condescend to go to Cardiganshire, and use his own eyes, instead of repeating the cuckoo-cry about the north-east and south-west strike (and I have never denied that the lamination of the rock lies in that direction), he might learn something as to the other phenomena of the district,—something of which I have attempted to teach him, but I find him so indignant and untractable that I almost despair of him. Mr. Smyth knows well enough that I am right in all I say about the rocks of the district; his gold lines showing the lodes prove that he fully understood the subject. He knows that the veins running to the south-east are crystallised by the old currents of electricity, and that those that run east and west (by the magnet) are crystallised by the more modern currents; or, in other words, he knows that the veins that run north-west and south-east, and that have been fed with lamination of metal running parallel with their walls, as well as the older and larger east and west veins, the metal in which runs obliquely from the north to the south wall, on the line of about south to south-east, owe their origin to the older currents of electricity that have laminated the rocks in lines from 35° west of south to 35° east of north; and that the east and west lodes, with the metal laminated parallel with their walls, were filled by the newer currents during the time the needle was receding from 18° to 23° to the westward of true north. In fact, Mr. Smyth has learnt all this, that "C. T." fails to comprehend, and the whole subject is evidently a mystery and a myth to his mind.

I may not possess, and do not lay claim to, one-millionth part of the science of the excellent geologists quoted by "C. T.," and whom we are all so proud to honour,—for that the modest quotation set down as the extent of my acquirements by "C. T.," and we must agree it is but a small matter,—yet, at the same time, without professing any great scientific acquirements, it must be granted that I know so much of my own business as to have wrought a number of mines in the last thirty years to great success that were previously unpaying; that I have resuscitated old mines that had been lying dormant for ages, that now rank amongst the most profitable mines in the country; and that I have laid out hundreds of thousands of pounds worth of underground work and

since my last.—**Oratunga Mine:** We are progressing with the operations here; the ground in the cross-cut is most favourable for copper as we drive east. We have taken out some good ore from the stopes, and have sent 15 tons to the port.—**Nuocleena:** The lode in the 10 ft. level, east of shaft D, is 6 ft. wide, composed of copper ore mixed with barytes. We are now stopping the west end of the winze with four men; the lode is 8 ft. wide, composed of copper ore mixed with barytes. We are also stopping the east end of the winze C above the deep adit level with four men, carrying 4 feet of copper ore and gossan. The shaft A is down to the 10 fathom level; we are driving the end with eight men. The lode in section 4 is 6 ft. wide, composed of gossan and copper ore—stoped by four men. The lode in section 3 is from 8 to 12 feet wide, composed principally of gossan, with veins and branches of ore. The lode in the deep adit end is 4 ft. wide, produced good ore. Since my last we have loaded 25 drays with copper ore from this mine, and have above 800 tons more at the surface to clean up. Our operations at the Wheel Start, Chambers' Consols, and Two Brothers, are progressing favourably.

NORTH RHINE.—Aug. 26: Capt. Barkla reports:—"The engine-shaft is now sunk 4 fms. 2 ft. below the 43 ft. level; the stratum of ground in the bottom of the shaft continues the same as when I sent you my last report. The lode is not cut in the shaft as yet, but I think it is near by the indications of the ground. I do not intend to incur any extra expense in putting men to explore the mine until the pitwork is completed in the above engine-shaft." With regard to claim No. 494 (Wallaroo), Capt. Snell is at present sinking a shaft on the most likely looking lode, which he hopes soon will make copper.

BON ACCORD.—Since July 20, the date of the last report, driving west from engine-shaft, in order to cut the winze lode at the depth of 50 fms., had been continued. Captain Jefferys reports (July 24):—"We have driven through a branch from 3 to 4 ft. wide, intersecting throughout with spots of ore, but not sufficient to make a stop. Aug. 14: "We have cut the lode, but have not yet found it into it yet. It is composed of spar, prill, and stains ore, but I hope we shall find something better in cutting through the lode. There is a great deal of water coming out of the present end. I have put three of the shaftmen and the pitman to drive north on the lode or branch which we first cut in the 50; it is a lode from 3 to 4 ft. wide, with some good ore in it."—Aug. 16: "In the 50, west from engine-shaft, the ground is composed of spar, prill, sand, with stains of ore and muddle. I think the main part of the lode is still to the head of us, as there is a great deal of water coming out of the end; the ground is favourable for driving. Aug. 16, driving north on the branch of the lode, is from 4 to 5 ft. wide, composed of black, grey, and yellow ore, with soft spar and gossan, and with a very promising appearance for improvement."—Aug. 23: "We have cut another branch of lode in the 50 cross-cut, west of engine-shaft, and have driven in it 4 ft. it is ore throughout, with a very promising appearance; the end is still letting out a great deal of water, which makes me think there is more of the lode ahead of us." The Chairman of the committee of management writes:—"It appears that the very large lode at the 40 is dividing itself into several smaller ones at the 50, some of which I hardly think can fail to make ore."

WORTHING.—Abstract of Capt. T. Lean's report for the month ending Aug. 16:—"Legg's engine-shaft is suspended for the last month on account of most of the tutwork men refusing their bargains on the setting-day, and the ore bargains having to be filled up by the shaftmen, but expect to resume after this month. The shaft is 9 fms. under the 33, and the ground pretty favourable for sinking. The lode channel is 6 fms. wide, below the 33, and is dipped 4 ft. out of the shaft. The 33, driving south, was extended last month, by four men, 5 fms. 4 ft. 5 in., and has been yielding some rich black ore, but not in quantity sufficient to value. It is expected the main part of the lode is standing west of the level, and the men have been put to drive in that direction—a great deal of water issuing from the western side of the level. The 23 south was extended by six men 8 fms. 9 in., on a good course of ore, which has continued from 3 fms. north of No. 1 winze, an extent of 30 fms., the ore still continuing good in the end; lode about 3 ft. 6 in. wide at present, average width from 2 to 4 feet the whole distance, and will yield about 6 tons of clean ore per fm. Having had the opportunity only of seeing the underground workings during the last month, the lode appears to be placed to find in the Bremer Mine and the well-defined lodes, bearing ore in almost every place it has been sunk or driven on, and the greater part in paying quantities, and there is every appearance of yielding an abundance of ore in depth. The strata running alongside the lode are generally composed of light blue killas and clay-slate, which is congenial to copper, and easy for mining development. We have raised and dressed 145 tons of ore last month, of from 12 to 15 per cent. As soon as our dressing arrangements are complete we shall be able to return 200 tons per month. The crusher is working well, and dressing going on satisfactorily. The smelters are also doing pretty well at present. If the mine is judiciously managed, and its resources properly developed, it will prove a valuable source of wealth to the proprietors. The acting manager writes Aug. 16: "We have much pleasure in handing you the following extract from a letter just received from Capt. Lean:—The bunch, or rather course of ore, still continues in the 23, and bigger and better than ever; it is now all the end big; this speaks well for the mine. We shall commence sinking the winze at once. The smelting, crushing, and dressing operations are proceeding satisfactorily. The profits for last month will be about 3000."

ENGLISH AND AUSTRALIAN COPPER.—The stock of coal at the works at Kooronga was 288 tons, at Kapunda 2839 tons, and at the New Point works 1430 tons. The stock of wood at the works at Kooronga was 4537 tons. There were seven furnaces and one refinery at work. The furnaces at the port are rapidly approaching completion. Five melting furnaces are ready, the sixth has its lining on, the seventh is ready for firing, and at the eighth the refinery is not yet above the foundation. The superintendent writes the house is complete, and a first-rate one it is; everything will be ready in a month, and the stock ought to be ready in seven weeks.—Cartage: We shall take the road in force on Sept. 3. The copper and ore shipments were progressing favourably.

WHEEL ELLIEN.—The usual captain's reports having been sent *via* Southampton, have not yet come to hand, but the directors have advice from Mr. Abraham Scott, and the colonial committee, dated Adelaide, Aug. 26, from which the following is extracted:—"The lode at the north shaft, in which the copper ore was found, is opening out with every appearance of making a large deposit of ore. Within the last few days some quantity of galena has been associated with it. Several tons of very fine green copper ore have been raised in sinking upon it; no level has yet been driven, and it is intended to sink a few fathoms further before doing so. The level in the 30, which is being driven to cut the new shaft with the corkscrew shaft, is on a large lode, which is yielding a considerable quantity of good ore, but mixed with muddle upon the hanging wall. The masons are now engaged in putting up the assay office, and in erecting the furnaces and chimneys."

The subjoined letter describes a discovery of copper at Wheel Elien:—"The shaft is sunk 26 fms.; for the first 23 fms. the lode was composed of iron gossan, containing gold and carbonate of lead ore, and varied from 2 to 10 ft. in width. At a depth of 23 fms. the iron gossan assumed a decomposed appearance, and gradually died out; a change took place in the character of the lode, and the country adjacent to the lode. The lode under the gossan consists chiefly of prill. At a depth of 25 fms. a branch of rich copper ore, 3 in. wide, was met with, which, at the present bottom of the shaft (say) 26 fms., has increased in size; it is now 10 inches wide, composed of red oxide, black oxide, and grey copper ores. The lode on each side of the branch of ore is composed of prill, strongly stained with green and blue carbonate copper ores. I send with this letter stones representing the ore:—No. 1, red oxide and steel grey copper ore, which will yield about 70 per cent. of copper; No. 2, black oxide and soft grey ore, which will yield about 60 per cent. of copper. The fact that copper ore have been found immediately under the strong iron gossan is regarded as a very important and very valuable discovery. The present bottom of the north shaft is the only place where the iron gossan has been sunk through; there copper of high percentage has been found, and strong indications that further improvements will follow. I am strongly of opinion that in the produce of Wheel Elien copper will ultimately form a very important and profitable branch.—H. R. HANCOCK."

SCOTTISH AUSTRALIAN.—Dickson's shaft, on the Good Hope Mine, had been sunk to the depth of 30 fms., and driving to cut the lode at that depth was about to be commenced immediately. Mr. Morehead, the superintendent, writes:—"We are now, it will be seen, approaching a most interesting point in our operations at this property. We expect to reach the lode in a drift of less than 5 fms.—Oak Creek Mine: Operations were commenced on this property on July 19, by driving north and south across the lode, in order to ascertain its width. Capt. Christie reports on July 27:—"The mine is about 100 fms. long, and the appearance of the lode is so far most favourable. The north end will communicate with the shaft. I should say that the point we have started from is just 12 ft. from the mouth of the adit. I have succeeded in finding on the property a clay for making fire-bricks, quartz in abundance, and a quarry of superior rubble stones." Mr. Morehead, superintendent, writes:—"The mining operations here since the date of my last have consisted in driving cross-cut north and south from the adit, in order to ascertain the width of the lode; the proved breadth of this already greatly exceeds what I spoke of in a former communication, inasmuch as it is now ascertained to be not less than 65 ft. Mr. Christie reports very favourably to the capabilities of the mine, and respects the requirements for constructing and working a smelting establishment." Altogether we have, I think, good grounds for entertaining very high expectations in reference to this new and important undertaking.—Wellerley Coal Field: The superintendent remarks, with regard to the Wellerley coal seam (which is the seam found in the Wellerley property), "I learn, on most reliable authority, that the coal from the Wellerley seam is in better repute than the produce of any other collieries in this colony."

PORT PHILLIP AND COLONIAL GOLD.—The quantity of quartz crushed during July was 3003 tons, yielding 1734 ozs. 2 dwts. 9 grs. of gold, being an average of 11 dwts. 13 grs. per ton. This is an improvement of 8 grains per ton on the previous month's yield, deducting the alloy included in that return. The amount received on the account for the month was 30221. 16s. 5d.; payments, 13561. 0s. 4d.; profit, 166. 16s. 11d. The total expenditure per ton was 8s. 4d.; ditto, deducting calculating cost, delivery account, 6s. 2d. The yield for the month was small, but the expenditure was not unusual. A remittance of 15000, has been received by this mail.

UN MOUNTAIN COPPER.—The Railway Bill for the town and streets of Nelson has passed through both Houses of the Assembly, and only awaits the Governor's assent, which he is certain to give. The railway is progressing satisfactorily: 150 men are constantly at work upon it, and several sections are completed. The laying of the permanent way and ballasting for 11 miles, have been let upon favourable terms, and we hope to commence bringing down chrome ore for shipment by Jan. 1 next. We have now ascertained that there will be a saving of 50000, upon Mr. Doyle's estimate, which you will be glad to learn. There will be a good profit upon the sale of firewood for the railway as the railway is available, so to clear all the working expenses of the railway for the chrome, but all this and the prosecution of the search for copper lodes will be postponed until we have effected a shipment of 2000 tons of chrome. We have not yet felt any inconvenience in the labour market, from the gold discoveries at Ottago.

REDUCTION OF COPPER ORES.—On Wednesday last a number of gentlemen interested in mining, amongst whom were the Hon. H. Ayers, E. Stirling, G. Hall, and A. Forster, and Messrs. S. Tomkinson, W. J. Crawford, J. Chambers, G. E. Hamilton, C. Todd, A. Hardy, W. H. Flood, J. Board, and J. Darwent, proceeded to the Yatala Smelting Works to examine Mr. Rodda's process for the production of copper ores, recently registered under the Patent Act. Some ore containing about 5 per cent. of copper were being operated on by Mr. Rodda, and the result seemed to be highly satisfactory. The leading distinction between Mr. Rodda's process and the ordinary method of copper smelting is that in the latter the whole mass of ore is fused by an intense heat, the stony portion coming away in the form of slag, and the metallic portion, or as much of it as possible, being tapped out of the furnace in a liquid condition; while by Mr. Rodda's process the metal in the ore alone is fused. By a particular system of excluding and admitting atmospheric air at certain stages of the process, the copper, or other metal, is not only fused within the stone, or gangue as it is technically termed, but by the influence of molecular attraction is run into small granules, which are distributed throughout the body of the stone more or less numerous, and of greater or less size, according to the richness of the ore operated upon. One effect of the process which the ore has undergone is that the gangue has become more friable than the raw ore—a circumstance of advantage in the subsequent operations of crushing and washing, which without any further application of heat the granulated copper is freed from its stony encasement. The copper by the new process, we understand, is far more completely extracted than by ordinary smelting, the final "tailings" exhibiting scarcely a trace of copper. Mr. Rodda's patent process is said to differ from one patented by his late father in several respects, but particularly in the essential matter that the late Mr. Rodda did not attempt to fuse, but merely to "metallise" the metal within the gangue, and thus it was never reduced into a fat state

for crushing and washing. So far as Mr. Rodda's operations have yet gone, they lead him to the conclusion that about 1/4 ton of wood will serve for the conversion of 1 ton of ore. This enables far poorer ores to be dealt with to a profit than can be done by ordinary smelting, and renders the discovery of material importance to the mining interest and the colony at large. Without being able to pronounce upon the commercial value of Mr. Rodda's process until the result of further and more extensive experiments is known, we may say that, to all appearance, it promises to be of considerable benefit to the colony. The patentee and the gentlemen connected with him are very sanguine of the most perfect success.—*South Australian Register, Aug. 24.*

FOREIGN MINES.

COPAPO—CHECO MINE.—Aug. 31: Estimated produce for Aug.:				
Quantity.	Ley.	Price.	Value.	
First class ore	64	30	\$26 1/2	\$310
Second class ore	180	15	9 1/2	213 75
Third class ore	108	13	7	94 50
Fourth class ore	96	12	6	72

Total

The lode in the back of the 40, west of Perez's shaft, is producing 1 ton of 15 per cent. ore to the fm. The lode in the back of the 30, north lode, are producing about 4 tons of 12 per cent. ore to the fm. We have abandoned No. 2 chifon. The arch of ground previously spoken of is reached, and we are engaged at present in taking it away and picking over old stulls, which will about pay for working.—A. ARTHUR.

NEW GRAND DUCHY OF BADEN.—S. Richards, Oct. 14: At Schindler engine-shaft, in the 54 north, the lode is 3 feet wide, worth 207. per fm. The lode in the back of this level are worth 127. per fm. In the same level south we are driving by the side of the lode. The part of the lode last taken down behind this end produced 107. worth of ore per fm. We are leaving it for the present, that it may be taken away to better advantage when the end is further advanced. In the 44 north the lode is 4 ft. wide, worth 37. per fm. In the same level south we have now 2 feet of the lode in the end, worth 87. per fm., which looks very promising. The lode in the back of this level are worth 97. per fm. The lode in the back of the 34, north lode, are worth on the average 67. per fm. In the 34 north we are still driving in moderate ground by the side of the lode. In the same level south the end men are gaining towards the lode, which I expect is not far ahead. In the cross-cut behind the end the lode is opened through; it is 3 ft. wide, with a large proportion of quartz, some fluor spar, and about 37. worth of ore per fm. At the smelting-works, campaign 28 was commenced this morning.

CLARENDON CONSOLIDATED.—Josiah Martin, Sept. 20: Stamford Hill Mine: The ground still continues hard and spare for driving. In the 94 cross-cut we have driven to date 7 fathoms. I think we must be getting near the lode, as there is more water coming from the end; it has been very wet for the last 3 feet, more so than we have seen it before. The lode in the winze sinking below the 82, on the Mill lode, is large, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south-west is 4 ft. wide, consisting of muddle, killas, and peach, with prill, and letting out more water; we are expecting a change here soon, as the rock by the side of the lode is altered to the better. The lode in the 46 south-west is about 2 ft. wide, with veins of ore but not enough to value; we find it to be underlying more than it did in the 82, and this makes the cross-cut longer in the 94. The lode in the stopes in the back of the 82 is worth about 3/4 ton of ore per fathom. I have put two men to drive north-west in the 82 to cut the lode spoken of in my last that we had cut in the 46; the ground is rather hard and wet, and as soon as the whim has drawn away the accumulated stuff from the different levels we shall put four men in this cross-cut, so as to push it on with all possible speed, which we hope to do by the end of this month. The lode in the 70 south

to put down a tramroad previous to our setting any stopes. We shall then be in a position to get the stuff to shaft for less than one-half the cost of wheeling. At surface we have cut out wheel-pit for drawing machine, and are getting on as fast as possible putting a line of rods for pumping to the large wheel at Ponterswyd. We shall, as soon as completed, detach the rods from the crushing-wheel, and shall then be able to use the crushing-mill, and in a short time 20 tons of ore for sale.

CORNUBIA.—W. H. Gray, Oct. 16: The men have reached the 40 pit in the eastern shaft, and Capt. Pinch was underground last night; he found the levels all standing firm, and not stopped away for some distance, with two good leaders of tin, and he brought to grass some good work. A few weeks will show the intrinsic value of this mine.

CROOKHAVEN.—H. Thomas, Oct. 14: I informed you that there were some necessary repairs to be done to the engine and condensing work, which have been effected in the time specified. The water is in fork, and the shaftmen at work in the engine-shaft with all the available force that can be made use of. In the winze sinking under the 40 the level is much the same as when I last wrote; the leader mentioned in my last report is very promising indeed, it is a very kindly-looking lode, and no doubt will improve in depth. The western trial shaft will I expect be 20 fathoms deep in another week or ten days. From the incessant floods of rain the surface water has in some measure retarded the sinking, but not of such a nature but that it was easily overcome. Every unnecessary expense is dispensed with, and my great object is to keep the cost as low as possible consistent with the due prosecution of the mine.

CROWLWY.—J. Roach, Oct. 17: The winze sinking under the adit level contains branches of solid lead ore, of superior quality, also munda and barytes. I believe this will lead to a good course of ore in depth.

CUDDEA.—F. Puckey, E. Dunstan, Oct. 16: In the 100, west of Tickle's shaft, we are still driving by the side of the lode; ground still unfavourable. Walker's shaft is now down 2 fathoms below the 60; the south or tin part of the lode at this point is 4 feet wide, worth 3 cwt. of black tin to the 100 sacks; this lode is of a very promising appearance, and appears to be improving in depth. This is looking well for opening up good tin ground as we sink to deeper levels in this part of the mine. The lode in the stope in the back of the 60, both east and west of the shaft, is still large, and producing work of a low quality. There is no lode taken down in the 60 and west since last reported.

DALE.—R. Nines, Oct. 16: The Pipe vein is at this time looking better than ever, and improves in value as the different carriages or courses of ore get nearer each other, and I fully expect an immense mass of ore at the junction. During the past week we have sunk the new shaft 7 ft., which is now down from surface 33 fms. 1 ft. The new vein still presents the same promising appearance as when I last wrote; but, notwithstanding, for the safety of the shaft, I shall be very glad when we get through it.

DEEP LEVEL.—T. P. Thomas, W. T. Harris, Oct. 17: Lankashire's level is looking more promising than for some time, and being proceeded with as fast as possible. The level driving in the gravel bed is suspended; the bed having dipped below it, we intend dialling in order to ascertain position or end of cross-cut from Thomas's level; when ascertained we shall sink the shaft below the bed for communication. We have about 3 tons of ore from the gravel bed.

DEVON AND CORNWALL UNITED.—T. Neill, Oct. 16: Fair progress is being made in sinking the engine-shaft below the deep adit level, as also the engine-shaft at William and Mary below the 10. In the deep adit level east the lode is producing good stones of ore. In the winze below the midway level the lode is producing 1 ton of ore per fathom. In the middle level east the lode is composed of munda and spar, and a small proportion of copper ore, a very promising lode. In the 12, west of water-wheel shaft, the lode is composed of spar, munda, capel, and stones of copper ore. In the 10, east of engine-shaft, the lode contains good stones of ore. In the adit level cross-cut south the ground is of a very favourable character, both for progress and mineral.

DEVON NEW COPPER.—P. Hawke, Oct. 16: The engine-shaft has been completed to the 88, and a cross-cut into the great north lode at this point commenced. I am prepared to be able to report that, judging from the indications now apparent in the 88, a junction of the new south lode with the great north lode may be fully expected within a few fathoms more sinking; the junction of the two lodes is of the greatest importance to the property, and will considerably enhance its value.

EAST ALFRED CONSOLS.—Henry Skewes, Oct. 16: Painter's shaft is now down 4½ fms. under the 70. The lode in the 70, both east and west, is of much the same character as when last reported. In the 50, west end, the lode is 2 ft. wide, worth 8½ per fathom. In the 38 west the lode is 2 ft. wide, worth 20½ per fathom. Other parts of the mine are without change to notice since last reported on.

EAST BEAM.—J. Webb, Jun., Oct. 17: We have finished cutting shaft-plate at the 20, and have driven the cross-cut 9 ft., where we cut a lode or branch 2 ft. wide, good stamps work. We shall continue the cross-cut south towards the main lode. On the whole the works are going on well, with good indications for getting quantities of tin.

EAST CARN BREA.—Thos. Glanville, Oct. 16: In the 40, driving west, the lode is now producing 2 tons of ore per fathom, with appearance of again improving. In the winze sinking below the 40 the lode is producing 6 tons of ore per fathom. In the 30, west of the western shaft, the lode is 3 ft. wide, composed of spar, mixed throughout with ore—a very promising lode. Nothing new to report on in the other parts of the mine.

EAST CHINNIS AND SOUTH PARK CONSOLS.—F. Puckey, C. Merritt, Oct. 14: Main Lode: In the 150, west of the engine-shaft, the lode is small and poor; this end is now getting into a more congenial stratum of ground for producing copper, and we have reason to expect an improvement in this level very soon. We have sunk a winze below the 122, west of engine-shaft, 4½ ft., through a very good ore lode, but in consequence of an increase of water we are obliged to suspend the sinking of this winze for the present. We shall now force on the bottom end west, to get back under this winze as fast as possible. In the 125, east of Smith's shaft, we have driven through the intersection of the north lode. The lode in the end is now looking more promising for producing copper, and is letting out a large stream of water. The lode in the stope in the bottom of the 112 east is 2 ft. wide, and will yield 2 tons of ore per fathom, worth 7½ per ton. The lode in the western stope, in the back of the 112, is 3 ft. wide, and will yield 2½ tons of ore per fathom, worth 6½ per ton. The lode in the eastern stope, in the back of the 112, is 4 ft. wide, and will yield 3½ tons of ore per fathom, worth 6½ per ton. North Lode: The lode in the winze sinking below the 60 west is still looking very promising, and opening out tribute ground. In the rise in the back of this level we have not taken down any lode for the month, as we want to communicate with the winze sinking below the 40 as soon as possible, for ventilation. In the 90 west the lode is 1½ ft. wide, producing occasional stones of ore. In the 90 east the lode is 1 ft. wide, but poor.

EAST FALMOUTH.—W. Hancock, Oct. 16: The lode in the adit end, east of the engine-shaft, is 2 feet wide, composed of capel, gossan, munda, and tin; saving work for the latter, and looking very kindly to-day for further improvement. In the adit cross-cut, south of said shaft, we have intersected a branch 6 inches wide, composed of flookan, munda, and blende, which I believe to be the north part of the new lode we discovered in the shaft, and have called it the south lode. I hope by the latter part of the week to intersect the south part of it, when I will send you its size, character, and bearing.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—J. Phillips, Oct. 17: The lode in the 35 end east is 5 ft. wide, composed of spar, munda, and copper ore, and is worth of the latter 3 tons per fathom, with every appearance of improvement; the same will apply to the stope in the back of this level. The men are engaged at No. 2 winze in stripping down the lode and cutting plate preparatory to driving the lode in No. 1 winze. The lode is 1½ ft. wide, worth from 2 to 3 tons of copper ore per fathom. We are driving by the side of the lode in the 24 and deep adit shaft. The ground is still favourable for sinking in Gard's shaft. Nothing new in any other part of the mine.

EAST PROVIDENCE.—T. Uren, Oct. 15: The summen have completed the new shaft to the 30, fixed rods, lifts, and made all necessary preparations for driving east and west in this level. We have also fixed the balance-bobs at the surface, erected the flat-roads, and this day we have put the engine to work. I expect in a few days to have the water drained, and all our operations in a regular course of working. Everything has been pushed on as rapidly as possible, both underground and at surface.

EAST ROSEWATNE.—J. James, Oct. 12: There has been no lode taken down in the 55 east during the week; it seems to maintain its size and value, worth 13½ per fathom. In the 55 west the lode is 1 ft. wide in the elvans, worth about 9½ per fathom. The stope over the 55 east is worth 8½ per fathom. In the winze below the 45 west the lode is 15 in. wide, worth 25½ per fathom; the water being rather quick for sinking, we are stopping the east end of the winze, where the lode is worth 15½ per fathom. In Hallett's shaft, sinking below the 43, the lode is 14 in. wide, impregnated with copper—a kindly lode, but not to value. In the 43 east the lode is from 6 to 8 in. wide, producing good stones of ore. Our tribute department is working the lode in the 43 east, and is producing 1 ton of ore per fathom.

EAST TOLGUS.—Oct. 16: The lode at John's shaft, sinking below the 70, is 15 in. wide, composed of peach, spar, and stones of ore. In the 70 end west the lode is 15 in. wide, composed chiefly of spar. In the same level east the lode is 18 in. wide, composed of spar, peach, and good stones of ore—a kindly lode. The stope in the back of the 22 east is worth for tin and copper 8½ per fathom. No lode or branch has been met with in the 46 cross-cut north since last reported. The ground at the new shaft is moderately easy.

EAST TREKERRY.—J. Nancarrow, R. Knuckey, Oct. 16: The flat-rod shaft is down to the 40, and we commence driving north and south to-day; the ground is greatly improved, and there is no doubt of the lode here being good. The lode in the 20 east has fallen out, but is now again improving, yielding ½ ton of ore per fathom, and bids fair to be soon as good as it has ever been. There is no other change of importance. Our prospects are good.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Oct. 12: The lode in the engine-shaft, sinking below the 35, is full 3 ft. wide, composed of quartz, gossan, and prlan, and yielding good work both for tin and copper, worth from 27½ to 30½ per fathom. In the eastern end of the shaft there is a very promising lode. We cannot see any alteration in the 35 east; it is producing good stones of ore and saving work for tin. The lode in the rise above the 35 west is 30 in. wide, of quartz, prlan, and gossan, with tin and copper, worth about 5½ per fathom. The lode in the 25 east is 20 in. wide, of gossan and prlan—a kindly lode. The lode in the winze sinking below the 25 west is large, of gossan, quartz, and prlan, worth about 5½ per fathom. We shall sample on Tuesday next 27 tons of copper ore, and sell the following Saturday a nice little parcel of tin. On the whole, I think the prospects here are very good.

EAST WHEAL RUSSELL.—J. Goidsworthy, Oct. 16: Homersham's shaft is in regular course of sinking below the 110; the ground is favourable for progress. In the 110 east the part of the lode carried is 4 feet wide, composed of capel, quartz, prlan, peach, and spotted throughout with black oxide and native copper, a kindly lode; the water is flowing freely from the lode, which indicates we consider favourable. In John's winze, in bottom of the 100, the sinking has been carried on the north side of the lode in more favourable ground for progress, and for the more speedy ventilation of the 110. The lode in the 100 east is 4 ft. wide, composed of capel, prlan, munda, &c. The stope in back of the 100, east of Oats's No. 1 winze, is worth 12½ per fathom. The stope in back of the 100, west of Oats's No. 2 winze, is worth 17½ per fathom. The lode in the 88 east is 2 ft. wide, composed of capel, &c., spotted with yellow copper ore. The driving in the 88, west of Hinchin's shaft, is being continued by the side of the lode. In the 66 cross-cut north there have been some branches of munda met with, which indicates more lode being to the north.

J. Merchants. Oct. 17: Homersham's shaft is being sunk below the 110 to the south of the lode, in favourable ground for progress—Homersham's Shaft: In the 110 east the lode is large; a portion of it (4 ft.) is being carried, and consists of quartz, munda, prlan, peach, black and red oxide of copper ore, and malleable copper; a great discharge of water is issuing from the end, and altogether the appearance warrants an improvement. John's winze, below the 100 east, is sinking by the side of the lode, for more speedy getting down upon the 110 below; the ground is becoming more easy, and fair progress is now being made. In the 100 east the lode is from 4 to 5 ft. wide, composed of capel, quartz, peach, and a little tin. In the stope in the back of the 100, east of Oats's No. 1 winze, the lode is worth 12½ per fathom. The lode in the stope in the back of the 100, west of Oats's No. 2 winze, is worth 15½ per fathom. In the 88 east the lode is 2 ft. wide, composed of munda, peach, quartz, and a small proportion of copper ore. In the 66 east the lode is being cross-cut, for proof of its size and character; it is, so far as cut into (9 ft.), composed of capel, munda, peach, quartz, and stones of ore. The 88, west of Hinchin's shaft, is being driven by the side of the lode, in favourable ground for progress.

EXMOUTH.—J. P. Nicholls, J. Nicholls, Oct. 16: The three stopes in back of the 72 north are yielding as follows:—Bishop's, 1½ tons per fathom; Laker's from 7 to 8 cwt. per fathom; Lanyon's, ¼ ton per fathom. The rise in back of the 60 north is at present rather spare for progress; lode unproductive. The 50 north is without change to notice since last report; there now remain about 3 fms. to be driven in this end to get over the rise in the 60 north; we shall endeavour to get a communication made here as soon as possible for ventilation, being rather deficient of air at those points at present. The lode in the 40 south contains some good stones of blende, and is letting out a little

more water, which we consider a favourable indication. The 20 south is without alteration in value since last report. The tribute department is also without change to notice.

FRANK MILLS.—J. P. Nicholls, J. Cornish, Oct. 16: The 84 north is yielding a small quantity of lead ore, but not enough to value. The ground in the 72 north has become rather easier for progress, and the lode will yield ¼ ton of lead ore per fathom. We have been obliged to suspend the 60 cross-cut west, as also the same level north from the cross-cut, on the western branch, for want of air, and commenced a winze in the bottom of the latter, which we shall communicate to the 72 for ventilation, when we shall again resume these points. The lode in the winze will yield from 5 to 6 cwt. of lead per fathom. The 45 north, on the western lode, is showing solid ore, but not enough to value; the same level north, on No. 1 branch, will yield about ¼ ton of lead ore per fathom, and is presenting a very good appearance for still better results. We have no change in any of our stopes to notice, except the one in the bottom of the 30, in which we had a run on Saturday last through to surface. At the 30, as you are aware, we put in a wide stall with very heavy timbers through a former run, and had taken away much ore ground from below towards the back of the 45, and in fact, should have finished the stope and filled it with little in a few days. We examined these timbers only a few hours before the run took place, and they looked safe; we may truly consider this little accident to have occurred at a very fortunate time, when no men were there at work, for on any other working your four must have inevitably perished. We, moreover, beg to remark that this will not injure the mine in the least, but it will cause a delay as it cuts off all communication from the ore ground north of this point at the back of the wide stall in the 45, which will somewhat affect our next sampling, but we are not now exactly prepared to say to what extent. We have commenced to drive a small side level by the run, after which we must get a winze through to the 45 before we can again get away work from here. This will occupy a month or six weeks to accomplish. We are now filling the hole at surface, which would otherwise have to be filled underground.

FULFORD.—J. Hampton, J. Collins, Oct. 15: The 21 east is a promising end, we have no doubt it is of great value, and the 21 west is improving, and the 11 east is more in the end. The stope at the 11 east is as good as we have ever seen them. In the highest place in the back of the 11 west we have met with a wide dipping west towards the great cross-course, which has cut the lode in two, but the ends of ground are of previous value, and it is probable that this lode carries ore with it all the way to the cross-course, which the 21 west may prove.

GAULTON.—G. Rowe, Oct. 12: We have forked the water to the 36; meantime fixed the 11-in. lift in the elstern, and nearly completed the timber work in good order both in the engine and whim-shafts. We are now busily engaged in clearing stuff and securing the level, which, in consequence of the water being in, broken down in several places, this work will be pushed on with all possible vigour and dispatch.

GERNICK.—C. Carkeo, Oct. 17: Spencer's engine-shaft is down 9 fms. 3 ft. below the 30; the lode in the bottom is 3 feet wide, of much the same character as for some time past. The lode in the 30 fm. level, driving east, is 2 ft. wide, producing a little black oxide of copper and a quantity of munda—a very kindly lode. The lode in the 30, driving west of engine-shaft, is 1 ft. wide, principally of friable quartz and gossan.

GONAMENA.—R. Pascoe, W. George, Jun., Oct. 16: Fair progress is being made in the 90 east and west on Sarah's lode without any material alteration in either end since our last report. In the 80 east the lode is 1½ ft. wide, producing occasional stones of ore, and from its appearance we are expecting an improvement. In the 70 east the lode is looking more promising than we have seen it for some time past; it is now 15 in. wide, composed of spar, munda, and good spots of copper ore. Hingston's engine-shaft is being pushed with all possible speed by nine men, and the ground continues favourable for sinking.

GREAT BRIGGAN.—T. Trelease, Oct. 15: The lode in the trial shaft has been disordered for the last few feet sinking by a slide, but is now getting more settled, and shows indications of improvement, producing some good ore, but not of much value. I have suspended the driving of the shallow adit, east of this shaft, in consequence of getting near the boundary, and the lode being poor up to this point; the men are now engaged in the level, which is 2½ ft. wide, and is looking more promising than the level in the stope west of the above stope is worth 5½ per fathom. This lode in the deep adit level, driving west of Trevelin's shaft, is 2½ ft. wide, producing good stones of copper ore—a promising end. This lode, east of said shaft, is 1 foot wide, of a more promising appearance. No other change to notice.

GREAT CRINNIS.—F. Puckey, E. Dunstan, Oct. 16: We have cut into the lode in the 120 about 4 feet; it contains a little copper ore, but not sufficient to value. The water is still issuing very strong from the south part. In the 100 west the lode is still very large, containing a little ore; we have now commenced to drive through it to find the south lode. In the winze sinking below this level, the lode is just as last reported. We have not yet cut the lode in the cross-cut driving south in this level.

GREAT RETALLACK.—W. H. Reynolds, Oct. 16: The lode in the shaft still yields good stones of lead, and is likely to improve in sinking. The lode in the 45 is of the same character as reported last week, and very promising for lead. The blende pitches in the 35 are yielding fair quantities of blende, and we shall sample 500 tons to-day, which we believe is of good quality.

GREAT SOUTH TOLGUS.—J. Daw, Oct. 15: Friday last was our setting-day, and the following bargains were set:—In the 125 west the lode is 1 ft. wide, unproductive—set to 30 fms. at 3½ per fathom. In the 112 west the lode is 1 ft. wide, composed of spar, peach, and munda, set to four men, at 3½ per fathom. In the 100 west the lode is disordered by a small cross-course, but we think it will improve soon—set to four men, at 3½ per fathom. The 90 east is in the cross-course—set to four men, at 6½ per fathom. In the 40 west the lode is 2 ft. wide, producing 2 tons of ore per fathom, set to two men and two boys, at 3½ per fathom.

GREAT TREHUNE CONSOLS.—W. Richards, Oct. 17: The prospects of this mine continue to be very cheering. The lode in the 80, west of Hobbler's shaft, maintains its size, and will produce 7½ tons of copper ore per fathom. The elvan referred to in my last report, on the south side of the lode, is equally favourable in character and for progress. The lode in the 70, west of the cross-course, is improved, and will yield 1 ton of ore per fathom; it is 4 ft. wide, and will yield about 6½ tons of copper ore per fathom. We are preparing to fix the plunger lift, and hope to get it done before wet weather sets in.

GREAT WHEAL ALFRED.—W. Bagthole, J. Dalbridge, Oct. 16: Copper-horn Shaft: The lode in the 220 west is 3 ft. wide—good stones of ore in it. No. 1 stope, in back of this level, is worth 18½ per fathom. No. 2 is worth 23½ per fathom. No. 3 is worth 10½ per fathom. The lode in No. 1 stope, in bottom of the 210 west, is worth 15½ per fathom. No. 2 is worth 23½ per fathom. No. 1 stope, in back of this level, is worth 24½ per fathom. No. 2 is worth 20½ per fathom. No. 3 is worth 8½ per fathom. No. 4 stope is suspended. The lode in the 210, in a 3 ft. wide, and the appearance is much the same.

GREAT WHEAL BUS UNITED.—Oct. 14: Things throughout the mine are much as last reported. At Boscawen we are draining the mine very satisfactorily, about 16 ft. in 24 hours; we hope by Thursday to fork the last 24 fms.

GREAT WHEAL MARTHA.—H. Rickard, Oct. 16: We have commenced driving in the 52 towards the lode, preparatory to cutting trip-plate, casing and dividing the shaft, fixing footway, &c., so as to make the shaft complete to bring the kibble to bottom. I consider it will occupy the space of a month to complete this important work. The stope in back of the 40, east from engine-shaft, are yielding fine work for copper ore, of great value before last week. The tribute department, upon the whole, has a little improved. We have now sunk 200 tons of ore on the 40, and the winze is now ailing. We are still carting and crushing and taking it to quay as fast as possible. Our next sampling will be on Friday week.

GREAT WHEAL VOR.—T. Gill, F. Francis, S. Harris, Oct. 16: In the 152, driving east of Metal engine-shaft, the lode is about 10 in. wide, worth about 20½ per fathom. In the 152, driving west of Metal engine-shaft, the lode is 10 in. wide, and worth about 20½ per fathom. In the 142, driving east of Metal engine-shaft, the lode is 1½ ft. wide, and worth 30½ per fathom. In the 142, driving west of Metal engine-shaft, we have not taken down the lode for the last week; the men have been employed in cutting a new barrow-road behind the casting, 132, driving east of Metal engine-shaft, the lode is about 1 ft. wide, but poor for minerals. In the 132, driving west of Metal engine-shaft, the lode is 1½ ft. wide, and worth 15½ per fathom. In the winze sinking below the 142, east of Metal engine-shaft, the lode is 4 ft. wide, and worth 150½ per fathom. In the winze sinking below the 132, west of Metal engine-shaft, the lode is about 2 ft. wide, worth 20½ per fathom. In the 50, driving east of Edwards's shaft, the lode is 4 ft. wide, yielding a little tin, but not sufficient to value; the lode looks very promising to improve shortly. At the new shaft, sinking on the south lode, the lode is from 1 ft. to 1½ ft. wide, producing good stones of tin ore; it is getting larger, and improving as we sink the shaft. Our stope in the 40, east of the shaft, is now quite as good as the stope in the 40 for some time past, and all our machinery throughout the mine is working very well.

GWYDYR PARK.—Capt. Smith: We have driven the deep adit on the course of the lode, since February, 21 fms. 4 ft. 7 in. up to the end of September; the end at present is looking very promising; the main part of the lode is about 10 in. wide, composed of spar, blende, and lead ore; there is also another branch, about 2 ft. to the north, about 6 in. wide, and carrying a mixture of lead ore through the end for about 4 ft. wide, so that we are obliged to save all the stuff for dressing. We took down about 8 ft. of the lode last week, which turned out about 6 cwt. of lead ore; the end at present is 6 ft. wide, and is looking very promising. The men have been employed in cutting a new barrow-road behind the casting, 132, driving east of Metal engine-shaft, the lode is about 1 ft. wide, but poor for minerals. In the 132, driving west of Metal engine-shaft, the lode is 1½ ft. wide, and worth 15½ per fathom. In the winze sinking below the 142, east of Metal engine-shaft, the lode is 4 ft. wide, and worth 150½ per fathom. In the winze sinking below the 132, west of Metal engine-shaft, the lode is about 2 ft. wide, worth 20½ per fathom. In the 50, driving east of Edwards's shaft, the lode is 4 ft. wide, yielding a little tin, but not sufficient to value; the lode looks very promising to improve shortly. At the new shaft, sinking on the south lode, the lode is from 1 ft. to 1½ ft. wide, producing good stones of tin ore; it is getting larger, and improving as we sink the shaft. Our stope in the 40, east of the shaft, is now quite as good as the stope in the 40 for some time past, and all our machinery throughout the mine is working very well.

HARWOOD.—J. Race, Oct. 11: We have now fully repaired the run, or accident, we have had in the high cross vein. The drift is set to drive at 55s. per fathom, and is worth 6 cwt. of ore per fathom, and is very promising for improvement; the vein being more compact. The drift in the north string is about as last reported on, and I expect more ore here shortly.

HAWKMOOR.—J. Richards, J. T. Phillips, Oct. 15: There is no lode taken down in the 25 fathom level, east of Rowe's rise; the value thereof will report next week. The lode in the stope in back of the 25, east of Rowe's rise, is worth 2 tons of copper ore per fathom.

HERWARD UNITED.—T. Pierce, Oct. 17: We have stopped the Dunsford sump, on Page's vein, this week, because we have cut into some water. At present we have commenced driving a level from the top of the sump west on the vein, towards the shaft. We have commenced opening on the Common, which has been sunk to a depth of 65 yards, and we have it well repaired and open to the depth of 40 yards.—Foulke's Sump, on Danford's Vein: We have little improvement in the bottom of this vein since my last report. Parry's sump is without any alteration, but both ends yield nice lumps of ore.

HINGSTON DOWN CONSOLS.—T. Richards, Oct. 16: The lode in the 100 west is worth 25½ per fathom; the rise in the back of this level will produce 40½ worth of ore per fathom. The 85 west is worth 45½ per fathom; the rise in the back of this level, against Bailey's engine-shaft, is worth 60½ per fathom. The winze sinking below this level is worth 70½ per fathom. No material change in any other part of the mine.

HOLMILLY.—Oct. 11: In the 175, east of shaft, we are still cross-cutting through the lode in the 161 west the lode is yielding good stones of copper. No lode has been taken down in the winze since last reported. In the stope in back of the 160, west of shaft, the lode is worth 20½ per fathom. I have set three new pitches in bottom of the 160 by sixteen men, varying from 5s. to 8s. in 11. tribute. We are rising in back of the 145 in the lead lode; from the appearance we expect better ground shortly.—Flapjack Lode: In the rise in back of the 100 the lode is worth 2 tons per fathom. In the rise in back of the 50 the lode is 3½ ft. wide, composed of munda and copper ore. In the 40, east of Wall's shaft, we are cross-cutting through the lode. In the stope in back of the above level, west of winze, the lode is worth 6 tons per fathom. In the 20, east of Wall's shaft, the lode is 2 ft. wide, worth 2 tons per fathom. The stope in back of the above level is worth 3 tons per fathom. In the 10 east the lode is 2 ft. wide, worth 3 tons per fathom; this end has passed through some tribute ground this month. In the pitch and stope in back of the above level, west of rise, the lode is worth 3 tons per fathom. In the adit level we are cutting through the lode. At our next sampling we shall have about 280 tons. We have at surface about 16 tons of lead, and about 400 tons of munda.

HUCKWORTHY BRIDGE.—J. H. Rodda, Oct. 15: Hinchin's engine-shaft is sunk

below the adit 40 fms., or 15 fathoms below the 25; we have driven the 40 west 3½ fms. 4 feet; the lode in the present end is 2½ feet wide, composed of capel, munda, quartz, prlan, and good stones of copper ore; in driving this level about 16 fathoms further we hope to meet with the shoot of ore gone down in the bottom of the 25, which will take two months to drive by six men. The 25 is driven east about 40 fms.; this end is set to drive, by two men, at 3½ per fathom; in the present end the lode is 3 feet wide, composed of capel, gossan, quartz, prlan, and occasional stones of grey ore. As we near the great cross-course it is very probable we shall meet with bunches of black and grey ore; it is very necessary that a cross-cut should be driven north and south to prove the side lodes and branches. Our machinery is in good working order, which will enable us to work at an easy cost.

KELLY BRAY.—S. James, Oct. 12: There has not been any lode taken down in the 75 east during the past week. The lode in the 30 east is still from 8 to 9 ft. wide, producing a quantity of munda and ore, a very promising lode, and will yield about 1½ ton of the latter per fathom, worth 5½ per ton; the stope in back of the above-named end are set on tribute to two men and two boys, at 10s. in 11. The tributors generally throughout the mine are working well, and earning fair wages in their respective tributes.—Eastern Mine: The lode in the 70 east is about 3 ft. wide, composed of quartz, munda, blende, and occasionally stones of copper ore, and the water is daily increasing in the end, which we consider is a good indication of there being a porous lode ahead. In the 60 east there has not been anything done during the past week, owing to the men being engaged in laying down a railroad, in order to facilitate the removal of the stuff from the same level. The lode in the rise in back of the 60 is 2 ft. wide, composed of munda, floor-spar, and rich copper ore, yielding about 1 ton of the latter per fathom, opening profitable tribute ground; a kindlier lode cannot be seen, and imbedded in congeal strata. We are dressing ore for the next sampling with all possible dispatch, and hope to have a fair one.

LADY BERTHA.—Capts. Harpur and Metherell, Oct. 14: The lode in both the 53 fm. levels, east and west, is composed of quartz, munda, iron, and some good stones of ore. In the east the lode is composed of capel, munda, and peach, intermixed with a little blende. The lode in the stope in the back of the 41 west continues to look pretty well, consisting of ore and munda, worth of the former 4 tons, or 20½ per fathom. In the 30 east the lode is about 3 feet wide, composed of munda, peach, and ore, worth of the latter about 2 tons, or 6½ per fathom. In the winze sinking below the bottom of this level the lode is from 2 to 3 ft. wide, carrying munda, peach, and ore, worth of the latter 1½ ton, or 5½ per fathom. In the 20 east no lode has been taken down since our last report. In the 10 east the lode is composed of munda, quartz, peach, and ore, carrying a quantity of green carbonates, worth 5½ per fathom. The tribute department continues to yield much as usual, with the exception of a pitch in the bottom of the 20 east, which is much improved, now worth for ore quite 15½ per fathom.

Capt. Harpur and Metherell, Oct. 17: In the 53 west the lode is large; we have cut into it several feet, and find it composed of quartz, munda, and some good stones of ore. In the same level east the lode is composed of capel, quartz, munda, and ore. The lode in the 41 east is about 2 feet wide, carrying peach, munda, and spar, intermixed with ore. The lode in the back of the 41 west continues to yield 4 tons of ore, worth 20½ per fathom. In the 30 east the lode is improving in appearance, being from 3 to 4 feet wide, composed of peach, munda, and ore, worth 3 tons of the latter, or 9½ per fathom. In the winze sinking below this level the ground is moderately easy for progress; the lode is composed of peach, munda, and ore, worth 1 ton of the latter, or 3½ per fathom. In the 20 east we have no particular change to notice. The lode in the 10 east is composed of quartz, munda, peach, and ore, worth of the latter 1 ton, or 5½ per fathom; its appearance is very encouraging, and it is likely for further improvement shortly. No change to mention in the tribute department.

LONG RAKE.—F. Evans, Oct. 16: There is no alteration in the 48 west; the lode is poor. The 48 east is improved; the lode is worth full 1 ton of lead per fathom; the stope in back of this level has fallen off in value, worth 10 cwt. per fathom at present. We are down on the lode in the shaft; it is composed of carbonate of lime, carrying small stones of lead, and very promising; we are prospecting it on its course, and report on its value as we sink. The carriers finished taking away the 25 cwt. of lead on Monday. All other works going on as usual, and favourable to the future prosperity of the undertaking.

MAUDLIN.—John Tregay: In the west mine during this week the men have been employed putting in timber in the new shaft, making it secure for sinking.—South Mine: In the adit end the lode is small, principally spar, munda, and spots of ore.

MOLLAND.—T. Bennetts, Oct. 16: The lode and branch in the 32 east may now be regarded as together, being about 2 ft. wide, producing good stones of ore occasionally, and showing a marked change for the better. In fact, I cannot now see any reason why we should not meet with an ore lode here again shortly. The men in the past week have stopped about a few feet in back of this level, where the lode will produce 1 ton of ore per fathom. In the 20 east the lode is still small and poor, with a branch of quartz on the south side, spotted with ore occasionally. The stope in bottom of this level are producing 1½ ton of ore per fathom, for 1 fm. deep. The branch referred to here in my last has proved to be only a dropper from the lode. We have now about 30 tons of ore at surface, 22 dressed and 8 undressed.

NANT-Y-IAO.—J. Roach, Oct. 12: The lode in the deep adit level, east of cross-course, is 3 ft. wide, consisting of clay-slate, flookan, carbonate of lime, and spots of ore; it has a promising appearance, which justifies us in expecting an early improvement. The lode in the stope in bottom of the adit, east of shaft, will produce from 3½ to 4½ worth of ore per fathom, and improving. No lode has been taken down in the stope in back of the 10 this week. We are dressing the lode, which will be cut down in a few days; we expect the yield of ore will be good. The stope in back of the 10, west of shaft, and west of rise, has greatly improved during the week, consequently we are now driving west to lengthen the stope. The yield of lead is now 1 ton per fathom. We have at surface 5 tons of lead ore, and 25 tons of blende of good quality. We will

per fm. for tin; the end is being driven at 87. 10s. per fm. The lode in the 41 is also looking better, producing saving work, and likely to improve. The copper lode in the 30, east of Vivian's shaft, is 1 1/2 ft. wide, producing 1 1/2 ton of copper ore per fm., with an improving appearance. Our last tin sale amounted to 463t. No other change to notice.

NORTH WREY.—T. Kemp, Oct. 17: We are still short of water to work the wheel, consequently there is no change to notice in our underground operations. We are making good progress in raising stone for building the engine walls. The greatest part of the engine is on the mine, and we shall commence its erection forthwith.

OKEL TOR.—W. B. Colman, Oct. 18: In the 80 east the lode continues good, yielding 5 tons of ore to the fathom; here we are laying open productive ground for future stopes, having driven through this second bunch of ore for 5 fathoms in length, which will also average 5 tons of ore per fm. The lode in the western stope in back of the 80 will yield 3 tons of ore per fm. The lode in the 65, and also in the bottom of the 50, will average 11 tons of ore per fm. In the 50 east we are not yet through the lode. The pitches in the back of the 50 are, on the whole, looking very well.

OLD TOLGUS UNITED.—W. Gilbert, Oct. 17: The lode in the 52 west is 1 1/2 ft. wide, producing stones of copper ore and a little tin—improving. The 42 west is 2 1/2 ft. wide, producing about 1 ton of blende per fm. and stones of copper ore, with a beautiful spar and prisms; we are daily looking for an improvement in this end. The 32 west is now 1 1/2 ft. wide, producing saving work for tin, with a beautiful bright killas by the side of it; we consider it very congenial for mineral. In the 52 west, on the new south lode, the ground is letting out a little water; but none of the south part of the lode is cut.

PEDN-AN-DREA UNITED.—W. Tregay, J. Thomas, Oct. 12: The sump sinking is going on well; the lode is producing good stones of tin; no waits in the shaft. The 110 east is worth 60t. per fm. for the breadth of the end, 6 ft.; more of the lode still standing north and south, driving as fast as possible by nine men. The stope in the 100 winze is worth 60t. per fm. The 100 east is poor. The 90 rise is worth 30t. per fm. The 90 west, on Skimmer's lode, is worth 8t. per fm. In the 68 winze the lode is promising for the production of tin—Street and Briggs's. In the 47 east end the lode is still small. The 40 east is worth 8t. per fm.

PENDEEN CONSOLS.—Wm. Eddy, J. Warren, Oct. 12: Our stopmen have been engaged in the past week in changing our bottom lifts, which they have completed to-day, and are working well. In the 118, north of engine-shaft, the ground is still slow for driving, and we have not yet cut the run of ore gone down from the 106. We also find that the ore is dipping north much faster than we expected; by that reason we cannot keep up our usual two-monthly sales, independent of our undersea working, and the mine is now suffering much from so long a delay.

PENHALLS.—R. Pryor, sen., John Gribble, Oct. 12: The lode in the engine-shaft, sinking below the 30, is 2 1/2 ft. wide, composed of muddle, peach, and spar, with occasional stones of tin. The lode in the 30, east of this shaft, is at present split into two parts, each one producing stones of tin. The lode in the 30, west of ditto, is 1 1/2 ft. wide, poor; we have about 2 fms. more to drive this end to come under the old workings met with in the level above. The lode in the 10, east of ditto, is at present disordered by a slide. North Lode: The lode in the 30, east of cross-cut, is worth 10t. per fm. There is no change to notice in any other part of the mine since our last report. We shall sell to-day about 7 1/2 tons of tin.

PENTRE LYGAN.—F. Evans, Oct. 12: There is no alteration to report since my last. We are pressing on the sinking of the shaft with a full number of men.

POLBRENN.—Oct. 17: Since setting we have cut through Dorcas's cross-course, in the 52 west of shaft, but the lode is small and poor. We had some good mining ground in the 42, west of the cross-course, both on Dorcas's lode and a flat lode, and branches to the north of it. We find since the cross-course has been cut through that the water has gone from the 42. This morning we put men to begin to clear up the bottom of the 42, to the west of the cross-course, for the purpose of sinking a winze, which I calculate will be in a good lode. We have also cut the great cross-course in the 42 west, but are not yet through it. The lode made very small in getting towards the end, but it is a pretty good work; we shall now have to drive north about 2 fms. to cut it, it being heaved that distance. There is nothing to report in any other tubwork bargains. The tribute pitches are much the same as last reported. We calculate on selling on Saturday about 3 tons of tin.

REDMOOR.—T. Taylor, Oct. 15: We intend taking down the lode in the different ends by setting-day (Friday). The ground in the 80 end is a little better for driving. The tribute pitches are without alteration.

RIBDEN.—R. Nines, Oct. 17: The driving of the 70 fm. levels, east and west, is going on well. The character of the ore is returning to its original state, and appears much the same as it did in the level above the 62, before it entered the cross-course; it is producing stones of copper and lead, much more than it did in the same ground in the 62, which is a good feature; and I believe there can be no doubt but that there is a very large deposit of ore to the west of the cross-course, just before us. The character of the lode in the eastern end is equally promising in appearance, and from the good specimens of copper and lead we are getting, there is every reason to believe that we shall soon have it in larger quantities. The prospects of the mine are everything that can be desired, although not having that quantity of ore which we expected.

ROSEWALL HILL AND RANSOM UNITED.—E. Thomas, Oct. 16: The lode in the Ransom engine-shaft, sinking below the 110, is much the same as when last reported. The lode in the end driving west of the cross-course, at this level, is now worth 30t. per fathom. The lode in the 80 end, east of the Ransom, is worth 12t. per fm. The other parts of the mine are without change.

ROSEWARNE CONSOLS.—J. Berriman, Oct. 15: Setting on Saturday last: In the 40, east of engine-shaft, the lode is 1 ft. wide, of a very kindly appearance, producing stones of ore; set to drive by four men, at 60s. per fm. In the 40, west of engine-shaft, the lode is 2 ft. wide, composed of spar, muddle, and peach, and a great deal of water coming out of it; set to drive by two men and one boy, at 40s. per fm. In the 20, south of the engine-shaft, the lode is split into two branches, one 8 in. wide and the other 1 ft. wide, with spots of black ore in it; set to drive by four men and three boys, at 40s. per fathom. We put our flat-rod, work on Thursday last, but we shall not require them for a week or two. The 20 south, east on the counter, is draining this shaft. The south-east shaft, on the counter, is set to sink by six men, at 6t. per fm.; we shall sink it with all speed. Ellen's shaft is nearly completed to the 30; the end is set to drive by two men, at 40s. per fm. We have set four pitches, at 10s. to 12s. in 11.

ROSEWARNE UNITED.—H. Woolcock, Oct. 17: In the 90, east of Jennings's shaft, the lode is 2 ft. wide, producing stones of ore. In the 90, west of footway, the lode is 2 ft. wide, unproductive. In the 80, east of Jennings's, the lode is 20 in. wide, opening tribute ground. In the 80, west of footway, the lode is 2 1/2 ft. wide, impregnated with ore. In the 74, west of Richards's, the lode is from 10 to 12 in. wide, producing stones of ore. In the 58, west of Richards's, the lode is 2 ft. wide, yielding good stones of ore, and has a very promising appearance. In the 46, east of Lane's shaft, the lode is 18 in. wide, at present unproductive. In the winze sinking below the 46, west of Richards's, the lode is 2 1/2 ft. wide, with a promising appearance. In the 34, west of Bush shaft, the lode is 2 feet wide, impregnated with ore. In the 34, east of Wellington shaft, the lode is 2 1/2 ft. wide, producing stones of copper and tin. The tribute department is producing a fair quantity of ore and tin.

SCORRIER CONSOLS.—T. White, Oct. 16: In the past fortnight the shaftmen have been engaged fixing pitwork, which is now completed from surface to the bottom of the shaft. We are now cutting pit at the 32, which will be finished in about one week from this time, after which we shall resume the sinking of the engine-shaft. The men are making good progress in clearing the adit. We shall sample on Saturday next about 100 tons of tin stuff. No other change since our last report.

SIGFORD CONSOLS.—W. Hosking, Oct. 16: A great improvement has taken place in the level driving west on the course of the engine-shaft lode, and there is every prospect of our shortly coming on a rich course of ore. On the north cross-lode the shaft has been driven west on the level, and we shall shortly commence sinking below the level. We have been engaged containing to discover the Smith's Wood south tin lode; we found a very promising lode, and sunk on it as far as we could for the water, but the lode having a south underlie, whereas the Smith's Wood lode underlies north, it was doubtful whether it was the same lode; we, therefore, continued containing, and have since found another lode, which there can be no doubt is the same as the south tin lode in Smith's Wood sett. I shall be able to say more about it in my next report. I consider the general prospects of the mine much improved.

SMITH'S WOOD.—W. Hosking, Oct. 16: We are making rapid progress in laying out our dressing, and in getting ready for stamping out ore; we have now a large quantity of stuff ready to go to the stamps. The south tin lode is turning out most productively, and from the richness of the ground we are enabled to develop it very speedily. We are now down nearly 10 fms. from the surface. The other lodes continue as rich and productive as when last reported on.

SORTIDGE CONSOLS.—R. Jackson, Oct. 7: In the 62, west of the western cross-course, no lode has been met with. In Mayne's stopes in back of the 50, on the south part of the main lode, the lode is worth 1 1/2 ton of ore per fm. In Crew's stop, in the bottom of the 40, on the south part of the main lode, the lode is worth 2 tons of ore per fm. In Gribben's stop, in the 40, on the south part of the main lode, the lode is worth for length of rise, 9 feet, 45t. per fm. In Eva's rise, on the south part of the main lode, no lode has been taken down this last week. In Stanton's stopes, in back of the 40, on the south part of the main lode, the lode is worth 3 tons of ore per fm. In Blanchard's stopes, in back of the 50, on No. 2 south lode, the lode is worth 1 ton of ore per fm. In Rowe's stopes, in back of the 40, on No. 2 south lode, the lode is worth 1 1/2 ton of ore per fm. In the 20, west of Arthur's cross-cut, on the south part of the main lode, the lode is 1 1/2 feet wide, yielding good stones of ore. There is no change to notice in any other part of the mine.

SOUTH CARADON WEALE HOOPER.—W. C. Cook, Oct. 12: We have got through the foot of spar in the engine-shaft, and shall now proceed to take down the lode. The ground in the 62, on No. 7 lode, is a little harder; the lode is still small, with a little copper ore, but not to value; the end, on the whole, may be considered as a very promising one; I am still of opinion that we shall find this lode to be a good one, and that East Intersected by the next cross-cut, which we hope to commence in about a month from this time; we shall be able to open up some valuable ore ground. There is no change in the 47 cross-cut on the winze.

SOUTH CARN BREA.—T. Glenville, Oct. 12: Tatwork Setting: The new shaft to 40 ft. below the 30, is at 30t. The 98 to drive east of the flat-rod shaft by six men, at 11t. per fm. The 88 to drive east of the flat-rod shaft by four men, at 6t. per fm. The 44 to drive east of flat-rod shaft by two men, at 9t. 10s. per fm. The rise in back of the 40 by four men, at 4t. 10s. per fm. The 40 to drive east of the flat-rod shaft by two men, at 6t. per fm. The 30 to drive west of the flat-rod shaft by two men, at 3t. 5s. per fm. The winze to sink below the 20 by two men, at 4t. per fm.

SOUTH CRENVER.—E. Chevrin, Oct. 16: The flat-rod shaft, sinking below the 105, the lode is 2 feet wide, producing stones of ore. In the 105, east of flat-rod shaft, the lode is 2 1/2 feet wide, producing 3 1/2 ton of ore per fm., and the ground more favourable for driving. Our tribute pitches have improved in the past week. South Minth's lode, in the 51, west of cross-cut, on the new south lode, the lode is 3 feet wide, producing stones of tin, but not to value. In the winze sinking in the bottom of the 32 the lode is 1 1/2 ft. wide, producing good stones of tin.

SOUTH DARREN.—J. Boundy, Oct. 15: The lode in the 80, both east and west of the engine-shaft, is 3 ft. wide, composed of a beautiful clay-slate, carbonate of lime, copper and lead ore, yielding of the latter 3 1/2 ton per fm., with a good appearance, and indicates a speedy improvement. The lode in the 70 and east is 3 1/2 ft. wide, containing a dark clay-slate, copper, carbonate of lime, and lead ore, yielding of the latter 9 cwt. per fathom. The ground about the lode at this point presents a beautiful appearance, and I anticipate we shall soon meet with an improvement here. The stopes are yielding about the same quantity of ore as they have for some time past, with the exception of one in the back of the 70, 45 fms. east of the engine-shaft, which is not looking quite so good. All the other points of operation remain much the same as last reported on. In tracing the back of the lode from the East Darren Mine into this sett, I find from dialling that we have to drive about 45 fms. further north to intersect it. The dressing and surface operations are proceeding as usual.

SOUTH DOLGOATH AND CARNARTHEN CONSOLS.—Wm. Roberts, Oct. 16: There is nothing new since reported for the meeting on the 10th inst. We are raising some rich grey ore in the back of the adit, on the counter lode.

SOUTH WHEAL BETSY.—W. Stephens, Oct. 15: The 16, south of Ley's shaft, has been driven 3 fathoms 5 feet, and no lode intersected, and it is at present suspended. The bottom end driving west of the north cross-cut has been extended 2 fms. 3 ft. 6 in., and is re-set at 10t. per fm.; stented 3 fms.

SOUTH WHEAL TOLGUS.—Oct. 16: Youren's Lode: The lode at Mitchell's engine-shaft, sinking below the 90, is 15 in. wide, composed of peach, spar, muddle, and spots of ore. In the 130 west the lode is 15 in. wide, unproductive. The lode in the 120 and east yields 1 ton of ore per fm. We have two stopes in back of the above-mentioned

level, each yielding 3 tons of ore per fm. The lode in the winze sinking in the bottom of the 120 west yields 2 tons of ore per fm. The lode in the 110 west is 15 in. wide, producing good stones of ore. In the 100 end west the lode is not looking quite so well for ore as when last reported, but it is a very pretty looking lode, yielding 2 tons of ore per fm., and kindly for improving. The lode in the 90 west yields 1 ton of ore per fm.

In the 78 west the lode is small and unproductive. South Lode: The lode in the 130 east is 2 ft. wide, composed of spar, peach, and muddle. In the 120 east the lode is 2 ft. wide, composed of spar, muddle, and good stones of ore—a kindly lode. The lode in the 100 east yields 1 ton of ore per fm. The lode in the winze sinking in the bottom of the 110 east yields 1 ton of ore per fm. We have two stopes working in back of the 110 east, each yielding 2 tons of ore per fm. In the winze sinking in the bottom of the 100 west the lode is 1 ft. wide—unproductive. The lode in the 100 east has not been taken down since last reported, then worth 1 ton per fm. New South Lode: In the 78, west of cross-cut, the lode is 15 in. wide, unproductive. North Lode: The lode in the 90 west is 2 ft. wide, composed of peach, muddle, and spar. We sampled to-day 235 tons of ore.

ST. DAVID UNITED.—E. Ralph, Oct. 12: There is no change to notice in these mines since last reported last week. The machinery is all in good working order.

ST. IVES WHEAL ALLEN.—H. Taylor, Oct. 10: Giesler's shaft is sunk below the 50 about 10 ft., in which the lode is 12 in. wide, unproductive. The lode in the 50 west is 10 in. wide, unproductive, but of a very promising appearance. In the 50, east of Giesler's, we have about 10 ft. more to drive to hole to the winze; as soon as this is done we calculate on some good tin ground being opened. The lode in the 30 east is 20 in. wide, and worth 20t. per fm.; we are stopping the bottom of this level in order to make it a proper size, and have about 5 ft. more to stop to the end. In the 40 west we think the lode has dipped north, and we are now cutting in the side of the level, to be fully satisfied on this point, and hope to say more about it next week. —Roderick's Lode: The lode in the 20, east of Louisa's shaft, is about 6 in. wide, and worth 3t. per fm. We hope to complete the clearing of the level, west of the shaft, which we have been working to begin to drive the end west of cross-course. Richard's shaft has been cleared 15 fms. below the surface, and have about 4 fms. more to clear to the adit, which we hope to do in a few days, after which we shall be in a position to open on the lode, which is 12 in. wide, and promising to be productive. The tribute pitch in back of the 40 is yielding very well. Nothing else new.

TOLCARNE.—Oct. 16: Field's Lode: The lode at Field's shaft, sinking below the 30, is 12 ft. wide, composed chiefly of spar. The lode in the 30 west is 2 ft. wide, composed of spar and good stones of ore. In the 30 east the lode is 18 in. wide, composed of gossan and spar. The lode in the 20 west yields 1 ton of ore per fm. The lode in the 20 east is 30 in. wide, composed of gossan, spar, and good stones of ore. The lode in the 10 east is small and poor. The rise in back of the 10 east is small and poor. The winze in the bottom of the 10 west is holed to the 20. The lode in the adit, driving east of shaft, is 6 inches wide, consisting chiefly of soft spar. —Enthoven's Lode: The lode in the stope in back of the adit, west of cross-cut, is 5 ft. wide, worth from 18t. to 20t. per fm. for tin. The ground in the adit cross-cut, driving south, is rather hard. The same remarks will apply to King's shaft, sinking from the surface. We have sampled 85 tons of ore.

TOLVADEN.—F. Gundry, Oct. 12: We have just completed our pay and monthly setting, which is as follows:—The engine-shaft to sink below the 67, by nine men, at 24t. per fm.; 1 ground, equally favourable for sinking. To drive the 67, east of engine-shaft, by six men; lode at present worth 30t. per fm. To stop the back of the 67 by six men; lode worth from 25t. to 30t. per fm. No. 1 winze sinking below the 60, by six men, at 3t. 10s. per fm.; lode worth 14t. per fm. To cross-cut the lode at the 60, east of the engine-shaft, by six men; the lode here has a very kindly appearance—36 fms. east of the stope. To drive the 50, east of the engine-shaft, by six men and one boy, at 7t. per fm.—57 fms. east of the stope. To cross-cut the lode at Gundry's shaft, by four men and one boy, at 5t. per fm.; lode very kindly. Ten pitches working, at an average of 11s. in 17.

TREFFRY CONSOLS.—J. Phillips, Oct. 16: Cartwright's shaft is now down 6 1/2 fms.; sinking in fine mine, through a light-blue killas or clay-slate, very favourable for the production of silver-lead ores; from indications as far as seen we may expect a good lode when cut.

TRELOWETH.—T. Richards, Oct. 17: In driving the 144, east of engine-shaft, the north part of the lode is worth 11t. per fm. The 144 fm. level cross-cut, driving south, is composed of quartz and capel, with stones of copper ore. The 134 east is improving in value, worth 16t. per fm. The 134 west (in south part) is worth 16t. per fm. The winze sinking below the 134 east is worth 20t. per fm. The sump-winze sinking below the 124 is worth 16t. per fm. The stope east of sump-winze is worth 25t. per fathom. The stope west of sump-winze is worth 25t. per fathom. The stope in the 124 fm. level cross-cut, south, we have cut into the lode (west) 5 ft. and purpose seeing the south part. In the 124 fm. level cross-cut, east of shaft, driving south, we cut into the lode 3 1/2 ft., principally quartz. The other parts of the mine are without change to notice.

TRENCROM.—R. Hollow, F. Bennetts, Oct. 10: In the 100, east of Giesler's engine-shaft, the lode is worth 2t. per fm. In the 100, west of the engine-shaft, the lode is worth 4t. per fm. In the 90, east of the engine-shaft, the lode is worth 4t. per fm. In the 90, west of the engine-shaft, the lode is worth 3t. 10s. per fm. In the 80, east of the engine-shaft, the lode is worth 3t. 10s. per fm. In the 80, west of the engine-shaft, the lode is worth 2t. per fm. In the 70, east of the engine-shaft, the lode is worth 2t. per fm. In the 70, west of the engine-shaft, the lode is worth 2t. per fm. In the 60, east of the engine-shaft, the lode is worth 2t. per fm. In the 60, west of the engine-shaft, the lode is worth 2t. per fm. In the 50, east of the engine-shaft, the lode is worth 2t. per fm. In the 50, west of the engine-shaft, the lode is worth 2t. per fm. In the 40, east of the engine-shaft, the lode is worth 2t. per fm. In the 40, west of the engine-shaft, the lode is worth 2t. per fm. In the 30, east of the engine-shaft, the lode is worth 2t. per fm. In the 30, west of the engine-shaft, the lode is worth 2t. per fm. In the 20, east of the engine-shaft, the lode is worth 2t. per fm. In the 20, west of the engine-shaft, the lode is worth 2t. per fm. In the 10, east of the engine-shaft, the lode is worth 2t. per fm. In the 10, west of the engine-shaft, the lode is worth 2t. per fm. In the 0, east of the engine-shaft, the lode is worth 2t. per fm. In the 0, west of the engine-shaft, the lode is worth 2t. per fm.

TREVENEN AND TREMENEH.—J. Webb, Oct. 10: The engine-shaft is sunk 2 fms. 2 ft. below the 170; the lode is nearly 2 ft. wide, worth 30t. per fm.; the rock has been hard, but I think it is becoming more soft; this is a point we need hastening on in order to get a level under the old workings throughout the mine; it will require several months to do so; although we have not cut out as yet all the bottom, we have sufficient to ensure the getting of great returns of tin, and that at a profit, after getting down the engine-shaft, and opening out new levels. The lode in the stopes at the 170, west of shaft, is worth 24t. per fm. The stopes east are worth 12t. per fm. We have eight men clearing the 170 east, and newly opening the level; it being found in a very contracted and broken state. The 160 and 150 fm. levels are being hastened on west; when these levels reach the winz-shaft, we shall get much tin stuff from the western ground. The machinery and works generally are in good order. We have cleared the adit, and the progress made in the winze will be valuable in winter seasons, preventing much water from going into the mine.

TREWEATHA.—J. Scoble, Oct. 15: The lode in the 30 north and south is worth 3 cwt. of lead ore per fathom, and promising to improve. The cross-cut in this level is letting down a large quantity of water; ground favourable for progress. The lode in the 15 south is 2 ft. wide, still producing saving work. The stope in the back of this level is worth 3 cwt. of lead per fm.

UNITED MINES (Tavistock).—J. Tucker, Oct. 16: The particulars of our setting for the current month are as follows:—The cross-cut in the 72 to be continued south as far as required, by about 5 ft. 10 in. per fm. The cross-cut has been driven through the north lode, which is about 3 ft. wide, producing low-priced stamps work throughout the elvan course, which is about 4 ft. wide, and has just touched in the back of the end the south lode, which presents a most kindly appearance, and carrying on the elvan or footwall a leader part about 2 or 3 in. wide of very good work for tin. I can say but little about the south lode as yet, as we are scarcely into it, but as far as seen it is the prettiest lode seen in this part of the mine, and the general appearances in this level are most encouraging. The 60 to be continued west by six men, at 4t. 10s. per fm., stented 2 fms.; this end is producing occasional rich stones of tin, but as a whole is not of much value. We purpose to sink a level in the back of the lode in the 60 fm. level cross-cut, behind the end, where we had a good lode in driving. The 60 east to be continued by six men, at 6t. per fathom, stented the month; we find, in stopping about the winze close to this end, that the lode is improved. The wheeling to as many men as are required at 4s. per fm.; the filling and landing to two men, at 7s. per fm.

WEST BASSET.—Wm. Roberts, Oct. 16: In the 114 west the lode is 2 ft. wide, at present unproductive. In the 104 west a cross-cut is being driven south to intersect the south part of the lode. In the 94, west of Grenville's shaft, the lode is 4 ft. wide, with ore mixed throughout, yielding good saving work, and likely to improve. In the 84 west the lode is 2 ft. wide, producing stones of ore. In the 74 west the lode is 4 ft. wide, unproductive. In the 64 west the lode is 2 ft. wide, producing occasional stones of ore. In the 52 west the lode is 2 1/2 feet wide, very promising, with stones of good ore. The tribute department is much as usual, looking well.

WEST BEAM.—Wm. Hosking, Oct. 16: I have just returned from Cornwall, where I have been to engage masons for erecting engine-house, having been disappointed through the illness of the former contractor in getting the requisite number of men. The shaft is now cleared down to the adit level, and I have set the driving of the cross-cut level to four men to intersect the Brothers copper lode. When in Cornwall I visited Mr. Gwynne, and saw the engine and the construction of the engine, and found it in a very forward state. The engine will be quite ready to deliver when the buildings are up.

WEST PAR.—H. G. Webb, Oct. 10: The engine-shaft is being sunk favourably; the ground is of a congenial character for mineral. The adit end is being driven north by two men; ground easy for driving. The water is drained in the old mine the lode agents have inspected.

WEST SHARP TOR.—Wm. Richards, Oct. 14: The part of the lode being carried in the 160, east and west of cross-cut, is chiefly composed of quartz and gossan, containing a little grey copper ore and crystallised copper; a very kind of spar, and augurs well for the 162 fm. level. We shall sink the lode in the 162 about 12 fms. below the surface, and the engine will be quite ready to deliver when the buildings are up, and fixing the bed plank from the 150 to the 162, and hope to put the machine kibble down there by the end of the week.

WEST SILVER BANK.—A. Francis, Oct. 16: During the past week our men have been engaged in opening out eastward at surface, on the course of the lode, which is from 4 to 5 ft. wide, composed of lead ore, spar, and gossan, worth from 30t. to 40t. per fm. I hope shortly to hear from you relative to the machinery, which we should lose no time in erecting, so as to get the mine into a profitable state as early as possible.

WHEAL ARTHUR.—T. Carpenter, Oct. 15: Edwards's Lode: The lode in the 50, east of the engine-shaft, is improved in size, now 18 in. wide, looking very promising to make a good lode. The lode in the 10, west of engine-shaft, is small, no tin to value. The flat-rod shaft has come down on the lode; in another week we hope to cut through it, and tell you something good. The adit east, on this lode, is nearly into the old workings; we hope shortly to let down the water. No change in the south adit.

WHEAL TOLGUS.—Oct. 16: We have completed cutting cistern-plate in the 40, and ground for connection of plunger; we have put in bearers, elstern, and have sent down and fixed the plunger bottom, and we have this morning commenced sending down pumps to rear up the lift, which we hope to get to work by the end of next week. We have nothing new to report from any of the ends, &c.

WHEAL TREVELYAN.—J. D. Osborn, Oct. 12: Cater's engine-shaft is sunk 2 1/2 fms. below the 58, on the south part of the lode; the ground is favourable for sinking. In the 58 end, driving west, in taking down the lode this week we find it a little disordered. The 48, driving west, is worth 10t. per fm. No. 3 winze, sinking below the 48, is worth for ore 20t. per fm. The stopes in back of said level, west of No. 3 winze, are worth 5t. per fm. The stopes, east of No. 3 winze, are worth 9t. per fm. There is no alteration since last report in the two cross-cuts driving north and south.

WHEAL UNION.—T. Glenville, Oct. 15: The lode in the 50, east of boundary cross-course, is 1 ft. wide, composed of spar, peach, muddle, and copper ore, and showing every appearance of a further improvement. The lode in Front's rise, in the back of the 50, east of boundary cross-course, is 4 ft. wide, composed of spar, prisms, muddle, and good stones of copper ore.—New Lode: The lode in the 50, west of cross-course, is 2 ft. wide, worth 10t. per fm. I have put six men to drive through the cross-course in this level, in order to cut the same lode east of the cross-course, and if it proves as productive as it is in the west we shall soon open up some valuable ore ground.—Old Lode: The lode in the 50, west of Hooper's rise, is 4 ft. wide, yielding 1 ton of good quality ore per fm. The lode in Burley's stope, in the back of the adit west, is 5 ft. wide,

yielding 1 1/2 ton of ore per fm. No alteration to notice in any other part of the mine.

WHEAL AGAR.—William Roberts, Oct. 16: The cross-cut in the 90 is progressing favourably. In the winze sinking under the 80 the lode is 1 1/2 ft. wide, producing about 1 ton of ore per fm., and looking promising for further improvement. In the 80 east the lode is 1 1/2 ft. wide, with occasional stones of ore. In the 80 west the lode is divided into two parts, and at present unproductive. In the 70 east the lode is 2 ft. wide, producing stones of good ore. In the same level west the lode is 2 1/2 ft. wide, composed of spar and stones of ore. The 60 west is looking promising; lode 3 ft. wide. The stope in back of the 80, and the pitch in back of the 70, are turning out well, and we hope to sample next week 75 or 80 tons of ore.

WHEAL CARADON.—F. Pryor, J. Brown, Sept. 29: We are making good progress in sinking the engine-shaft below the 40, now down 6 1/2 fms.; the lode is large, and is producing occasional stones of ore. We hope in about three months to reach the 50 fm. level, when we shall at once commence to open up the lode both east and west of shaft. We have intersected the south lode in the 40 cross-cut, and have commenced to drive west on the same; it is 3 ft. wide, composed principally of capel, peach, and muddle, with spots of ore, and is letting out water freely. As soon as this end is extended a few fathoms further we recommend the continuation of the 40 cross-cut south, with a view of intersecting the other branches seen in the upper levels. The new, or trial shaft, of Mary's lode, is suspended for the present, from the influx of surface water. We hope soon to drain this by bringing in the adit level or lobby, which we are pushing on with a full pair of men as fast as possible. The lode in the shaft is large, with kindly appearances, and has produced some good stones of ore. We have contained the sett south but have not found any lode worthy of notice. Our engine and pitwork are in good working order, and nothing shall be wanting on our parts for the speedy and effectual development of this property.

WHEAL CONCORD.—Capt. Luke, Oct. 15: We have let the shallow level on tribute at 10s. in 10. The cross-cut in the 38 is still progressing, and looking favourable for the lode, which we hope soon to cut.

WHEAL CREBOR.—Capt. Gifford, Oct. 15: Nothing new to report on to-day. The stopes continue to yield 2 tons of copper ore per fm.

WHEAL CUPID.—R. Pryor, sen., Oct. 12: The rise in back of the 40, east of shaft, is still worth 1 1/2 ton of ore per fm.; I have also set another rise in back of this level to four men, at 2t. per fm., where the lode is 2 ft. wide, composed of muddle, peach, and spar, with a little black and grey ore intermixed. These two rises being in whole ground to surface, there is no doubt but that some good deposits of ore will be met with. No change to notice in any other part of the mine.

WHEAL EDWARD.—M. H. East, Oct. 12: South Lode: In the 92 west the lode is 2 1/2 ft. wide, yielding good stones of ore. In the 11 west the lode is 4 ft. wide, worth 4 tons of ore per fm. In the 71 west the lode is 4 1/2 ft. wide, worth fully 3 tons of ore per fm. In the new stopes, east and west of Peter's winze, below the 60 west, the lode is worth fully 4 tons of ore per fm.; we hope to open these stopes sufficiently, to enable us to resume driving the 60 in about three weeks from this time. In the 50 west the lode is 3 1/2 ft. wide, yielding a little ore, and looking more promising; in back of this level we have commenced a new rise, in order to prove the ground, it being in whole to surface; the lode is worth about 2 tons of ore per fm. to commence with. In Richard's stopes, below the 40 east, the lode is worth 2 1/2 tons of ore per fathom. We expect the lode is taken down, and in the end it is poor at present. In Bray's cross-cut, south, the 50 east, the ground is easier for working; and, if it continues, we hope to cut the new south lode by next setting-day. In the boundary cross-cut north the ground is again very favourable for working, and we calculate we are within 8 or 9 fms. of the point where the counter lode ought to be found.—North Lode: In the 52 west the lode is 1 1/2 ft. wide, composed of spar, capel, muddle, and spots of ore.

WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Oct. 12: The lode in the 110 and 90 is looking much the same as we stated last Saturday. There is no change in the character of the ground in the 50 cross-cut, and the men are engaged driving the lode in the flat-rod shaft; the granite is looking very congenial for copper. We expect to sample on Tuesday next about 50 tons of copper ore, some of which will be of good quality.

WHEAL GRYLIS.—E. Rogers, J. Pope, Oct. 17: Fisher's Lode: Annie's engine-shaft is down 5 ft. below the 20; the lode is worth full 16t. per fm. In the end east at the 20 the lode is also improved, worth 4t. per fm. In the winze in the bottom of the 10 fm. level, east of this shaft, the lode

COAL MARKET.—On Monday, there were 33 arrivals; the quantity for sale was very trifling. House coal in demand, at fully previous prices. Hartley's, 3d. per ton dearer; manufacturers' steady, and without alteration in value. Best house coal, 18s. to 18s. 6d.; seconds, 16s. to 17s.; Hartley's, 16s. to 17s. 6d.; manufacturers', 12s. 6d. to 14s. 6d. per ton.—On Wednesday, there were 10 arrivals. The weather being colder, and only a few cargoes on sale, house coals sold freely, at an advance of 6d. per ton. Hartley's and manufacturers' effected a clearance, at fully previous prices.—On Friday, there were 119 arrivals. The demand for house coal was brisk, and a large sale was effected, at an advance of 3d. per ton. Hartley's were dull, and prices 1s. per ton lower. In manufacturers' no variation. Hetton Wallsend, 19s. 3d.; South Hetton Wallsend, 19s. 3d.; Stewart's Wallsend, 19s.; Lambton Wallsend, 18s. 9d.; Eden Main, 17s. 3d.; Harton Wallsend 16s. 3d.; Bell's Wallsend, 16s. 6d. per ton.

Hartley's, 15s. 6d. to 16s. 6d.; manufacturers', 12s. 6d. to 14s. 6d. per ton: 10 cargoes unsold; 125 ships at sea.

COAL CONTRACTS.—The Admiralty require the supply of 300 tons of South Wales Coal, for steam-vessels at Bathurst, River Gambia.—Also, 1500 tons of South Wales Coal, for steam-vessels at Haulbowline.

The settlement of the fortnightly account in the MINING MARKET this week was rather heavier than usual, and there has been, besides, a fair average amount of business transacted. The shares chiefly in demand have been—Wheal Seton, Condurrow, East Carn Brea, Hingston Down, Sortridge Consols, South Carn Brea, East Basset, Wheal Basset, North Downs, Grambler and St. Aubyn, South Basset, East Caradon, Marke Valley, Retallack, Par Consols, South Tolgus, Tincroft, East Russell, Wheal Grylls, Carn Camborne, Redmoor, North Robert, Treloweth, Trelawny, West Trevelyan, Ludcott, Wheal Margaret, South Carn Brea, Cook's Kitchen, Stray Park, Rosewall Hill and Ransom, Wheal Edward, Wheal Arthur, and a few other shares. The market has long wanted improvements in some of the mines; and those now announced in Condurrow and Wheal Seton have added considerably to its buoyancy and activity. West Seton, 300 to 310, ex div.; at the meeting held on Tuesday, the accounts showed a profit on the two months of 988l. 16s. 2d., and a dividend of 7l. per share (2800l.) was declared, leaving 69l. 15s. 1d. in hand. The ores sold, and which will come to the credit of next account, realised 8216l. 4s. 8d.; so that a dividend, we understand, of 8l. may be expected at the next meeting. Owing to an accident, to which we alluded some time ago, the ores sold and credited in the present accounts realised only 4833l. 3s. 10d. The ends in the mine yield 12 tons, the winzes 14 tons, and the stopes 50 tons of copper ore per fm. East Caradon shares have not been so firm, and leave off 26 to 26½; we have not received any report, but understand the ends are not looking quite so well. Condurrow have advanced to 95, 100, and a large business done. East Basset shares have kept at about 62½ to 67½, and leave off 65 to 70. Grambler and St. Aubyn shares have been in good request, and have advanced to 14, 16. Wheal Basset not quite so firm, at 85 to 90.

Wheal Seton shares have been in considerable demand, and leave off 92½ to 95; at the meeting, on Monday, the accounts showed a profit of 68l. 5s. 1d. on the two months, and a balance in hand of 941l. 10s. 8d. The report states that since the previous meeting the north caunter lode had been cut in the 140, and driven upon 4½ fathoms, producing from 3 to 4 tons of copper ore per fm. The western end is now 2½ ft. wide, worth 2½ tons of copper ore per fm. The eastern end is worth 8 tons per fathom. The winze below the 130, 14 fathoms east of the end in the 140, is worth 6 tons per fm. The lode in the 100, west of Tilly's shaft, is worth 8 tons per fm.; the winze below it 5 tons per fm. On the south lode, the 70, west of Bull's shaft, is 5 ft. wide, producing 8 tons of lead ore per fathom. Since this report was written by the agents a great improvement has taken place, as we are given to understand, in the eastern end of the 140, and in the south lode in the 70. The prospects of the mine, therefore, are very encouraging; a good dividend, it is expected, will be declared at the next meeting, in December; and as there are only 396 shares in the mine there is room for a great rise should the mine continue to progress as it does at present, and of which there is little doubt, considering the rich strata it is in. Alfred Consols, 20s. to 22s. 6d.; Bryn Gwio, 25 to 26 (call paid); Camborn Vein, 2½ to 2½; Carn Brea, 75 to 80; Cook's Kitchen, 28 to 30; Caradon Consols, 8½ to 9½; Ding Dong, 14 to 16; Drake Walls, 16s. to 18s.; Dolcoath, 52s to 55s; Devon Great Consols, 360 to 370; the south lode in these mines has greatly improved, and is becoming a very important feature to the company. In the 115, east of Field's shaft, in Wheal Josiah, it is worth 10 tons of copper ore per fm. A winze in back of the 115 east a fine course of ore, worth 10 tons per fm. The 103 east is worth 10 tons per fm. The 80 east, on Nantes lode, is worth 4 tons per fathom. The 70 east, on south lode, is worth 4 tons per fathom. At Hitchins's shaft, the 50, on the south lode, is worth 3 tons per fathom. The rise in back of the 50, west of Trevena's cross-cut, is worth 5 tons, or 60l. per fm. Great South Tolgus, 4½ to 4½; East Carn Brea, 94 to 94½; the lode in the 40 west is yielding 2 tons of copper ore per fm., with appearances of improvement. The winze below the 40 west is worth 5 tons per fm. North Basset shares have been flat, and leave off 4½ to 4½; the lode in the 92 west is 2½ ft. wide, producing 2 tons of copper ore per fm. East Russell, 2½ to 3½; the lode in the stopes east of Oats's No. 1 winze, is worth 15l. per fm. for copper ore. Great Wheal Vor, 5½ to 5½; Great Wheal Martha, 32s. to 34s.; Herodfoot, 33 to 35; Lady Bertha, 12s. 6d. to 15s.; Wheal Margery, 6 to 6½. Redmoor shares have been very largely dealt in, and leave off 4s. to 5s. We have frequently called attention to the very low price of these shares, considering the improving prospects of the mine; and it would appear that public attention is at last being directed to the property, and there is every probability of a fair advance in the shares. Hingston Down shares have fluctuated from 4½ to 4½, and leave off 4½ to 4½. Marke Valley, 10 to 10½; North Downs, 4½ to 5; Long Rake, 1½ to 1½; North Minera, 21s. to 23s.; East Grenville shares are flatter, at 36s. 6d. to 38s. 6d. No business seems to be doing in these shares now. In the engine-shaft below the 35 the lode is worth 27l. to 30l. per fathom. The mine has sampled 27 tons of copper ore.

South Carn Brea, 34 to 34½; on Tuesday about 8½ tons of tin were sold, at 68l. 12s. 6d. per ton, realising 580l. 10s. 6d. North Treskerby, 22 to 24. Par Consols have advanced from 8½ to 9. Providence Mines, 40 to 42; Rosewall Hill and Ransom United, 25s. to 27s. 6d.; Rosewarne United, 21 to 23. Sortridge Consols have further advanced to 15s., 17s. Carn Camborne shares are quiet, and, in the absence of business, flatter, at 22s. to 24s.; the lode lately cut in the 13 is worth 10l. per fm.; the lode in the 10, east of winze, is improving. South Frances, 110 to 115; South Tolgus, 40 to 42; Stray Park, 28 to 29; Tincroft, 6½ to 6½; Trelawny Consols, 14 to 16; Wendron Consols, 11 to 13; West Caradon, 38 to 40; West Rose Down, 14 to 16; Wheal Arthur, 12s. to 14s.; Wheal Grenville, 27s. to 28s.; Wheal Grylls, 7½ to 8. West Trevelyan, 2½ to 2½; the 48 west is worth 10l. per fm.; No. 3 winze, 20l. per fm. Wheal Ludcott, 2 to 2½; Wheal Margaret, 39 to 41. Wheal Trelawny shares have been in good request, at 15½ to 15½. Wheal Unity, 16s. to 18s.; Retallack, 20s. to 22s. 6d. North Robert shares have advanced to 22s., 24s., but we do not hear of any improvement being known at the office. At Cwm Erfin a dividend of 650l. 5s. (15s. per share) was declared on the 3d instant.

On the Stock Exchange transactions in Mining Shares have been rather numerous during the week. The following prices were officially recorded in British Mining Shares:—Great South Tolgus, 4½; Great Wheal Vor, 5½; Hingston Down, 4½; West Seton, 31½; Alfred Consols, 1; East Basset, 65; East Caradon, 26½, 26½; Grambler, 15½; North Wheal Basset, 4½; West Caradon, 39½, 39; Sortridge Consols, 4. In Colonial Mining Shares the prices were as follow:—Great Northern Copper of South Australia, 1½; Bon Accord, 1, 1½; Scottish Australian, 1½; Kapunda, 2; Port Phillip, 1; Dun Mountain, 1. In Foreign Mining Shares the prices were:—East del Rey, 1½, 1½, 1½; St. John del Rey, 43, 43½, 44; United Mexican, 6½, 6½, 6½; Linare, 7½.

The closing quotations for shares in new undertakings to-day were:—Ocean Marine Insurance, 4, 4½ prem.; Thames and Mersey Marine, 1, 1½ prem.; Universal Marine Insurance, 1½, 1½ dis.; London and Provincial Marine, 1½, 1½ dis.; Commercial Union Fire, 1 dis. to par; Mercantile Fire, par to 1½ prem.; Oriental and General Marine, 1½, 1½ prem.; Metropolitan and Provincial Bank, 1½, 1½ prem.; General Tram Railroad Company, 1 prem.; East del Rey, 1½, 1½; and London and Provincial Agricultural, par. It is believed that the share certificates of the Commercial Union Assurance Company will be ready for delivery in the course of next week, when the settlement on the Stock Exchange will immediately follow.

At Truro Ticketing, on Thursday, 5347 tons of ore were sold, realising 29,586l. 7s. 6d. The particulars of the sale were—Average standard, 134l. 9s.; average produce, 6½; average price per ton, 5l. 10s. 6d.; quantity of fine copper, 329 tons 8 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Sept. 17.....	6196	132 11 0	6½	£5 6 0	£87 7 0
Oct. 1.....	3874	130 2 0	6½	£5 14 0	88 0 0
Oct. 3.....	3704	134 10 0	6½	£5 13 0	90 3 0
Oct. 10.....	2997	133 6 0	6½	£5 8 0	92 10 0
Oct. 17.....	5347	134 9 0	6½	£5 10 6	90 0 0

Compared with the sale of last week, the decline has been in the standard 1l. 17s., and in the price per ton of ore about 2s. 6d. Compared with the corresponding sale of last month, the advance has been in the standard 1l. 18s., and in the price per ton of ore about 2s. 6d.

At the Swansea Ticketing, on Tuesday, 1167 tons of ore were sold, realising 14,926l. 11s. The particulars of the sale were—Average standard, 111l. 2s.; average produce, 13½; average price per ton, 12l. 15s. 6d.; quantity of fine copper, 160 tons 9 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore cop.
Sept. 17.....	1804	108 4 6	13¼	£12 3 6	£91 19 6
Oct. 1.....	1720	109 8 6	13 1-16	12 1 6	92 10 6
Oct. 15.....	1167	111 2 0	13½	12 15 6	93 0 6

Compared with last sale the advance has been—in the standard, 10s.; and in the price per ton of ore about 16d. Compared with the corresponding sale of last month the advance has been—in the standard 25s., and in the price per ton of ore about 3s. Of the 1167 tons of copper ore sold on Tuesday, 472 tons were from British mines, which gave an average produce of 9½, and sold at an average standard of 117l. 6s.—8l. 18s. 6d. per ton of ore. The remaining 695 tons were foreign ores, which gave an average produce of 16½, and sold at an average standard of 108l. 13s.—15l. 8s. per ton of ore. On Oct. 29 there will be offered for sale 1146 tons of ore, from Knockmahon, Cuba, Laxey, Berehaven, West Kaime, New South Wales, Lochwinnoch, and Sweden.

At Wheal Seton meeting, on Monday, the accounts for July and August showed—Balance last audit, 673l. 5s. 7d.; ore sold from western ground, and carriage (deducting 109l. 1s. 5d. dues at 1-15th), 1330l. 2s. 6d.; ore sold from Trevena, and carriage (deducting 14l. 13s. 10d. dues at 1-15th), 206l. 10s. 2d.—2609l. 18s. 3d.—Mine cost, merchants' bills, and sundries, 1688l. 7s. 7d.; leaving credit balance, 941l. 10s. 8d. The profit on the two months' working was 68l. 5s. 1d. Capt. R. Williams and Wm. Rowe reported upon the points of operation, and congratulated the adventurers upon the important improvements which have recently taken place in the mine.

At the Great Wheal Badden meeting, on Thursday (Mr. C. Hill in the chair), the accounts showed—Balance last audit, 15l. 13s. 6d.; mine cost for June, 108l. 19s. 3d.; three months' office expenses to June 30, 26l. 11s.; committee's expenses to the mine, 12l. 17s. 6d.; mine cost, July, 114l. 7s. 2d.; Aug., 131l. 10s.; office expenses to the end of September, 24l. 9s.; mine cost, September, 132l. 17s.; merchants' bills, 195l. 17s. 3d.; tributes, 38l. 10s. 6d.; interest, 10l. 11s. 10d.; half-year's rent of house to Midsummer, 9l. 2s. 4d.—Cash received for one year's rent of house at the mine (less repairs), 107l.; ore sold, 46l. 18s. 4d.; call received, 600l. 12s. 6d.; leaving debit balance, 162l. 13s. 6d. An estimated account of payments and receipts before the meeting, to be held in January next, showing a balance of payments over receipts of 918l. 6s. 3d. was laid before the meeting. A call of 5s. per share was made. It was agreed that a special general meeting should be held before the general meeting in January next, for the purpose of declaring forfeited all shares upon which the call made on June 26 last should then remain unpaid; and also that for the future no shares should be restored unless paid with interest at 5 per cent. by the time specified. Capt. J. Hampton and J. Jenkin's report was read.

At Bryn Gwio Mine meeting, on Monday (Mr. Seaward in the chair), the accounts showed a debit balance of 214l. 8s. 5d. A call of 1l. per share was made. Details will be found in another column. A special meeting will shortly be held for considering the desirability of placing the company under the Joint Stock Companies Acts, with limited liability.

At the Trumpet United Mines meeting, on Tuesday (Mr. John Sugars in the chair), the accounts showed—Balance last audit, 115l. 16s. 6d.; mine cost, June, 156l. 14s.; July, 147l. 18s. 6d.; August, 132l. 5s. 10d.; merchants' bills, 106l. 7s. 1d.—692l. 4s. 10d.—Calls received, 432l. 18s. 11d.; tin sold, 36l. 5s. 6d.; leaving debit balance, 190l. 5s. 5d. The balance of liabilities over assets was 753l. 3s. 9d. A call of 4s. per share was made, with a discount of 5 per cent. to those parties who pay the call before October 30. The secretary was requested to carry out the resolution of the meeting of July 16, relative to the unpaid calls. Capt. G. R. and W. Odgers reported that, seeing the lodes were now yielding tin, more or less, and that they were getting down to the level where the old men found their tin, their prospects were indeed promising, and they would continue to carry out the work on as economical a principle as it was possible.

At Gwydyr Park Consols meeting, on Oct. 15, the accounts showed a balance of assets over liabilities of 43l. 9s. 7d. A call of 3d. per share was made, payable on or before Nov. 6.

At the Llanharry Hematite Iron Ore Company meeting, on Oct. 9 (Sir C. P. Roney in the chair), the contract for raising the ore was discussed and settled; the certificates will be issued to the shareholders this week in lieu of their receipt forms; and it is expected that the works will be very shortly in active operation.

LEEDS, OCT. 17.—In Mining Shares there is little or no animation, business has been very limited, and restricted chiefly to transactions in progressive mines:—Brea Consols, 16s. to 20s.; Cornubia, 17s. to 25s.; Craven Moor, 3s. 6d. to 4s. 6d.; Hebdon Moor, 20s. to 25s.; Merryfield, 5s. to 6s.; Nidderdale, par; North Jane, 2 to 2½; North Hallenbeg, 10s. to 15s.; Wensleydale, 7s. to 8s.; Yorkshire, 10s. to 12s.; Wazey Burrows Gull LEAD MINING COMPANY (Wensleydale).—This company, which is a private one, is divided into sixty shares (and is under the management of Mr. Tattersall, the late manager of the Keld-Held Lead Mine), has paid three dividends during the present year, amounting altogether to 7l. 10s. per share, making a total of 450l. which has been paid in dividends from the commencement of this year to the present time, and there is every probability of its paying two more good dividends before the year expires. It gives us great pleasure to be able to report the successful and profitable working of this mine, and we trust that other directors and captains will take courage and strive to produce profitable returns to the shareholders, many of whom have come nobly forward to support the mines under very discouraging circumstances.

PROGRESS OF SLATE COMPANIES.

Although the supply of slate continues unequal to the demand, the trade is most active. In the various districts from which we have advices we learn that several new quarries have been started, more especially in Carnarvonshire and Merionethshire. There are numerous companies in course of formation, some of which will shortly be introduced to the notice of the public, while the others propose to raise their capital from private sources. An influential company has just succeeded in raising its capital privately, the property of which is situated near Bangor, and where vigorous operations will be commenced forthwith. With regard to the price of slate, it is more than probable that within the next few weeks a considerable rise in the value will take place, the stocks on hand being unprecedentedly low.

From LOWER TALDWYNS we learn that the operations are at present confined to sinking and testing the slate vein, the engineer (Mr. C. L. Fuller) being as sanguine as he ever was as to the ultimate success of the undertaking. As the opening of the quarry was proceeded with a few slates are made—indeed, the stock thus accumulated has recently been sold for about 50l. The quarry produces large and small slates of the best quality, for which a ready market is found in the immediate neighbourhood. At present, however, the operations are confined to testing the value of the vein rather than to the production of slates, as the general meeting of the directors may be in a position to state to the shareholders that the quality and extent of the quarry have been tested, and the intrinsic value of the property proved.

THE BRITISH SLATE COMPANY.—A special general meeting has been convened for the purpose of confirming a resolution passed at the general meeting for reducing the capital of the company to 35,000l., and for converting the unsubscribed portion of the same into shares of 10l. each; for the confirming a resolution passed at the same meeting authorising the directors to issue an amended prospectus; and for the passing of a resolution giving to the holders of 1l. shares the option of merging them into 10l. shares of the new issue.

THE SULPHUR TRADE.—It seems that the American war has had a material effect upon the profits of the various Irish mines raising sulphur as their principal product—the Wicklow Mines, for example, having had to debit their reserve fund with a loss resulting from the estimates of the March stock not having been realised. The directors of the Wicklow Company, however, are enabled to report that their company has not been affected to the extent that the great stagnation in the alkali trade may have led the proprietors to expect. The commencement of the civil war in America was at once a most serious check to the exportation from the United Kingdom to the United States of soda and other alkalis. As the exportation to America exceeded that to all other countries in the world, the result was that the manufacturers reduced their make (some stopping work altogether), and that the company received orders to limit the shipments, to remove the necessity for which reductions on the contract prices were submitted to. During the past half-year upwards of 23,000 tons of ore have been delivered to the customers of the company, and a profit of 10,885l. 16s. 3d. realised upon the half-year's operations.

We understand that Mr. Edward King, of Austinfrairs, has been appointed the pursuer of the Great Briggan Mine. This sett adjoins North Downs and Wheal Rose; and the object of purchasing the materials of the latter sett is with the view of forming a respectable company to work the same with spirit, it being, as it were, the connecting link between the Great Busy and the Briggan setts. This run of mineral ground is said to be the finest not in operation, North Downs alone having returned a profit of upwards of 100,000l.

LEAD ORES.

Sold on the 8th October.

Mines.	Tons.	Price per ton.	Purchasers.
Carmarthen United	25	£12 7 6	Sims, Williams, & Co.
Cargill	87	13 0 0	T. Somers.
ditto	5	5 17 0	R. Mitchell & Son.

Sold on the 11th October.

Mines.	Tons.	Price per ton.	Purchasers.
Frongoch	70	12 1 0	Fanther Co.
ditto	77	14 8 6	ditto
East Darren	60	14 17 0	Newton, Keates, & Co.
Cwm Erfin	68	12 6 0	Newton, Keates, & Co.
ditto	30	12 9 6	Walker, Parker, & Co.
Rhowyddol	20	12 1 6	ditto
Dyffryn	20	12 3 0	Newton, Keates, & Co.

Sold on the 17th October.

Mines.	Tons.	Price per ton.	Purchasers.
Iale of Man Mining Company	100	14 8 0	—
North Miners	20	12 4 0	A. Courage & Co.

BLACK TIN.

Sold on the 10th October.

Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
South Carn Brea	8 9 0 21	£58 12 6	£580 10 6	Chyndour.

Sold on the 11th October.

Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
Wheal Anne	0 14 1 22	75 0 0	53 18 6	—
St. Wh. Vor	18 1 1 8	—	1306 5 4	—
Bottle Hill	3 15 0 0	—	266 17 10	—

Sold on the 12th October.

COPPER ORES.

Sampled September 25, and sold at Swansea October 15.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	106	12½	£11 5 0	Sestri	23	21	£19 6 0
ditto	101	12½	11 5 0	ditto	11	10	19 6 0
ditto	43	22½	23 15 6	ditto	16	19½	18 10 0
ditto	8	15½	14 10 0	ditto	15	18	16 10 0
ditto	86	12½	11 9 0	Genoa	2	2	£5 10 6
ditto	41	22½	20 11 6	ditto	2	2	£5 10 6
ditto	40	20½	19 10 6	Berehaven	100	11	£10 10 6
ditto	25	21	19 7 6	Wh. Maria	35	25½	24 11 6
ditto	7	50	43 10 6	ditto	35	25½	24 12 6
Knockmahon	61	9½	9 5 0	Almeria	29	18½	18 0 0
ditto	60	9½	8 16 0	Schull Bay	24	8½	7 17 6
ditto	106	9½	8 8 0	ditto	3	20½	19 10 0
ditto	32	10½	9 8 0	Smith's ore	22	2½	1 5 0
ditto	4	9½	8 15 6	Norway	2	18½	17 11 6

TOTAL PRODUCE.					
Cobre	457	£6729 17 6	Wheat Maria.....	68	£1673 15 0
Knockmahon	323	2884 17 0	Almeria.....	29	377 0 0
Sestri	122	1631 11 6	Smith Bay.....	27	247 10 0
Genoa	17	264 11 0	Scull's ore.....	22	30 16 0
Berehaven	100	1052 10 0	Norway.....	2	35 3 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Mines.	Tons.	Amount.
Copper Miners' Company	91	£1895 1 0
Freeman and Co.	94	884 13 0
P. Grenfell and Sons	184½	1965 10 6
Vivian and Sons	350½	3584 1 6
Williams, Foster, and Co.	273	3394 8 0
Mines Royal Company	29	377 0 0
Mason and Elkington	35	880 2 6
F. Bankart	110	2465 14 6
Total	1167	£14,926 11 0

Copper Ores for sale at Swansea, Oct. 29.—Knockmahon 68, 67, 106, 11, 94, 93.—Cuba 100, 99, 92, 81, 33, 3.—Laxey 109.—Berehaven 103.—West Kaime 12, 5.—New South Wales 2, 1, 1.—Lochwinnoch 26, 26, 13.—Swedish 1.—Total, 1146 tons.

AVERAGES.			
	Produce.	Price.	Standard.
British	9 9-16	£ 8 18 6	£117 6 0
Foreign	16¼	15 8 0	108 13 0
Sale	13½	£12 15 6	£111 2 0

Totals—British, 472; Foreign, 696=1167 tons (21 cwt.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	10½	£10 0 0	£112 8 0
Foreign	14 15-16	13 17 0	107 11 6

Sale.....

	Produce.	Price.	Standard.
British	13 1-16	£12 1 6	£169 8 6

Totals—British, 974; Foreign, 926=1720 tons (21 cwt.)

COPPER ORES.

Sampled Oct. 2, and sold at the Royal Hotel, Truro, Oct. 17.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	127	£5 10 6	Wheal Creake	60	£3 9 6
ditto	126	3 3 6	ditto	40	7 15 6
ditto	123	3 0 6	ditto	21	7 8 6
ditto	115	4 18 0	Great Wheal Martha	107	2 8 6
ditto	109	4 1 0	ditto	80	4 6 6
ditto	106	5 4 6	ditto	72	1 0 0
ditto	102	5 3 6	ditto	59	1 16 6
ditto	95	5 1 6	East Caradon	88	7 19 0
ditto	94	3 12 0	ditto	85	6 17 6
ditto	93	2 2 6	ditto	70	7 15 6
ditto	92	5 5 6	ditto	67	6 6 0
ditto	88	10 12 6	Wheal Edward	71	3 3 0
ditto	87	1 17 6	ditto	59	4 13 6
ditto	83	7 19 6	ditto	53	5 8 0
ditto	82	11 16 0	ditto	43	2 8 6
ditto	76	10 12 6	ditto	28	4 11 0
ditto	74	3 4 0	Bedford United	107	5 7 6
ditto	68	5 2 6	ditto	106	5 19 0
ditto	63	3 2 6	North Robert	72	3 14 6
ditto	53	2 5 6	ditto	65	10 10 6
ditto	47	3 19 6	ditto	40	8 3 0
ditto	44	15 19 0	Wheal Emma	66	2 13 0
ditto	43	15 19 0	ditto	55	4 13 6
ditto	40	3 4 0	ditto	21	1 0 6
ditto	39	3 0 0	Wheal Friendship	73	9 10 6
Phoenix Mines	100	4 9 6	ditto	36	5 16 6
ditto	94	5 0 6	ditto	31	11 19 0
ditto	53	5 0 6	Kelly Bray	66	3 10 6
ditto	52	8 18 0	ditto	24	1 14 0
ditto	73	8 16 0	Sortridge Consols	70	9 4 6
ditto	67	10 15 6	ditto	17	5 3 6
ditto	66	8 19 0	Wheal Franco	57	8 3 6
Marke Valley	90	5 16 0	Devon and Cornwall	20	2 2 6
ditto	84	5 19 0	Hawkmoor	26	6 11 6
ditto	80	5 2 6	ditto	23	2 6 0
ditto	60	5 18 6	Brookwood	31	5 11 6
ditto	45	3 18 0	ditto	2	20 2 6
ditto	36	4 2 6	Furdon	30	7 0 6
Wheal Creake	79	7 8 6	Hender's Ore	20	1 19 0
ditto	77	5 5 6	Harvey's Ore	16	1 18 6
ditto	65	7 4 6	Trenouth	10	2 14 0

TOTAL PRODUCE.

Devon Great Con.	2069	£1154 14 6	Kelly Bray	90	£273 9 0
Phoenix Mines	555	3932 5 6	Sortridge Consols ..	87	733 14 6
Marke Valley	385	2068 14 0	Wheal Franco	57	180 19 6
Wheal Creake	342	2136 3 0	Devon & Cornwall ..	50	105 0 0
Great Wh. Martha	318	785 3 0	Hawkmoor	49	222 14 0
East Caradon	310	2250 6 6	Brookwood	35	213 1 6
Wheal Edward	253	1006 19 6	Furdon	30	210 15 0
Bedford United	213	1205 16 6	Hender's Ore	20	39 0 0
North Robert	173	1278 6 6	Harvey's Ore	16	30 16 0
Wheal Emma	147	456 16 6	Trenouth	10	27 0 0

THE CHESTERFIELD AND MIDLAND SILKSTONE COLLIERY COMPANY (LIMITED).

Capital £40,000 in 8000 shares of £5 each (with power to increase).

J. SAY SPARKES, Esq., H.E.I.C.S., Brunswick Villas, St. John's Wood, London, W.
WILLIAM MITCHELL, Esq., 54, Gracechurch-street, London, E.C.
HENRY BROWNIGG, Esq., 33, Lime-street, London, E.C.
GEORGE BROCKLEBANK, Esq., Gloucester-place, Greenwich.
GEORGE SENIOR, Esq., Coalowner, Barnsley.
Major CHARLES SANDERS, The Engineer, Thirsk.
 (With power to add to their number.)

MANAGING DIRECTOR—John Say Sparkes, Esq., H.E.I.C.S.
BANKERS—London and County Joint Stock, Lombard-street, London, E.C.
SOLICITORS—Messrs. Courtenay and Croome, 9, Gracechurch-street, London, E.C.
AUDITORS—Messrs. Cooper Brothers, Public Accountants, 13, George-st., Mansion-house.
BROKER—Charles W. Marten, Esq., 26, Throgmorton-street, London, E.C.
CONSULTING COLLIERY ENGINEERS—Messrs. Brown and Jefferock, Sheffield and Barnsley.
SECRETARY AND ENGINEER—James Wright, Esq., C.E.

OFFICES.—LONDON, 42, BRIDGE STREET, BLACKFRIARS.

ABRIDGED PROSPECTUS.

This company is incorporated for the purpose of establishing a colliery, and raising the well-known Silkstone coal upon the estates of the Dukes of Devonshire and Rutland, at Sheepheigh, in the vicinity of Chesterfield.

From accurate surveys made by the most eminent mineral engineers, the directors can with confidence predict that the returns upon the capital, at the very least, be 21 per cent. while the facilities for winning the coal such as to render it almost a certainty that dividends will be paid within twelve months from the commencement of the works.

The coal is the Silkstone, well known as the best suited for domestic use, and for which the demand, both in the locality of the works as well as in London, is almost unlimited, and at the highest prices.

From the reports given by different mineral surveyors, and taking the highest of their estimates, it will be seen that the coal can be raised, and put into the railway wagons at a cost not exceeding 4s. 6d. per ton (including all royalties, expense of management, and fair allowance for the redemption of capital expended in opening the colliery). After deducting these from the lowest prices now ruling in the neighbourhood, there is left a clear average profit of 1s. per ton, or an annual income of £8750, being upwards of 22 per cent. on the total capital of £40,000, even should the whole be required.

Although the directors have fixed the capital nominally at £40,000, it is almost certain that little over two-thirds of that amount will ever be required; hence it is thought probable that the total calls on each share will not exceed £3 10s. at most; these will be asked for in 10s. per share on application, £1 on allotment, and the remainder in calls of £1 each as required; and in no case will the calls be at less intervals than three months; and unless at least one-half of the capital be subscribed, all deposits will be repaid in full.

Surveyor's reports, together with prospectuses and forms of application, may be had at the company's office, 42, Bridge-street, Blackfriars, London, E.C.

THE CHESTERFIELD AND MIDLAND SILKSTONE COLLIERY COMPANY (LIMITED).

ALL APPLICATIONS FOR SHARES IN THIS COMPANY MUST BE MADE ON OR BEFORE THE 27th inst., after which time the list will be closed, and the allocation of shares proceeded with according to priority of application. J. WRIGHT, Secy.

EAST ABRAHAM MINING COMPANY, CORNWALL.

Capital £8000, in 800 shares of £10 each.

With power to increase by consent of shareholders holding two-thirds of the capital stock of the company.

This important mining property is situated in the richest copper mining district of Cornwall, distinguished by the immense riches returned from the same lodes in the adjoining mines, exceeding the amount of £2,500,000 sterling. The ore raised during the last working near the boundary of Wheal Abraham East realised the high price of £34 per ton, at a standard of £80 per ton of fine copper.

An adit level is driven upwards of 150 fms., and three east and west lodes intersected, each producing copper ore of good quality. Tribute pitches will be let, and considerable profits realised from the adit level, and the 40 fms. deep.

Five shafts are sunk, and a communication effected to the deep adit level, which will greatly facilitate returning the ore to advantage.

The east and west lodes are intersected by an elvan, also by the main cross-course of the district, it being well known by practical men that where such intersection occurs with metallic lodes, as found in East Abraham, large deposits of ore are invariably found. The company consist of 800 shares. There has been £4500 expended on the mine, equal to £7 10s. per share. It is estimated that an additional £1500 will be ample to bring the works to a profitable issue. This amount will be required by quarterly instalments, it being a fundamental principle in the constitution of the company that the mine shall not remain in debt, and that every account shall be paid monthly, thereby limiting the liability of the shareholders to the amount of their respective shares.

A limited number of shares are for disposal at £5, being a discount of £2 10s., subject to calls as stated above.

It is seldom that such an opportunity occurs to invest a limited amount of capital, with the certainty of realising immediate profits, such as presented in East Abraham. The object of the proprietors being to limit the number of shares to bona fide shareholders, feeling confident they will steadily advance in price as the operations progress, and become a permanent investment, in preference to having a large number of shares floating in the market, and subject to fluctuations of price.

Surveys have been made, and the mine reported on by the agents whose names are appended below, in which reference is given as to the richness of the ore, and the capabilities of the mine.

Applications for the remaining shares to be made, accompanied with the amount of £5 per share, to Messrs. FULLER and Co., 26, Change-alley, Cornhill, London.

REPORTS.

Camborne, Sept. 21, 1861.—I beg to hand you my report of this valuable piece of mineral property. It is situated in the parish of Crowan, one of the best mineral districts in Cornwall. It adjoins the Old Crenver and Wheal Abraham Mines, which were the most productive lodes ever discovered. I have had some conversation with some of the old men that were employed there the last time the mine was worked; they tell me that the lodes were very rich in the eastern part of the mine, close up to your property. One man, by the name of Richard Bennett, said that he worked on tribute at the eastern shaft; the lode they had in their pitch was 6 ft. wide, all grey copper, sold for £34 per ton, at a standard of £80 per ton for fine copper. He says this shaft is within a few fathoms of your ground—that the lode was particularly rich from the adit to the 180 in the eastern part; it appears you have ore ground standing for 180 fms. deep, from the bottom of the adit level. The East Abraham is adjoining, and on the same lode, to the east of the above-named mine. This shaft contains three well-known copper lodes, having the junction of the killas and granite in the sett. The East Abraham has an adit brought up into it for a considerable distance, which is in good repair, and unwaters the mine 40 fms. deep. Shafts for drawing and ladder-roads are communicated with it, therefore the works can be carried out very cheaply. There are three lodes intersected in this level—two east and west, the other a counter or middle lode; this lode is driven east on for about 40 fms. in the granite, varying southward in its course about 40°, consequently it is fast approaching the south lodes; this lode produces copper that will pay for working, and by driving 20 or 30 fms. on the south lode it will be intersected, which point it was the intention of the former workers to arrive at, but their funds being inadequate they were obliged reluctantly to abandon the mine. At this point of intersection rich courses of copper may be relied on, as was the case in the adjoining mines. I would recommend driving west on the north lode, to the intersection of the counter with the north, east, and west lode. There is copper in each of these ends on all the three lodes that will pay for working, and more than 100 fms. of ore ground laid open that will pay for working on tribute, and leave a profit to the shareholders; parties of old tributers well acquainted with the lodes in the back of the adit level are daily applying to me to let them take tribute pitches. A man by the name of Williams says he was one of the last men that worked in the adit level; he wants you to let him a tribute pitch; then all you have to do is to put in a ladder-road for the men to go down, and commence breaking a parcel of ore immediately. I have just seen Captain Vivian, and asked him about the Crenver and Wheal Abraham Mines being put to work. If they intended to commence working soon? He told me he did not know how soon; you will have such an advantage for taking away your lodes that never was heard of before. It is decided to work the Crenver and Wheal Abraham Mines, so you are safe to have a dry mine in the East Abraham, as their shaft is down nearly 200 fms. My advice to you is to commence operations at once in the adit level, where you will soon get a parcel of ore to go into the market with. Tribute pitches may be let at once, there being applications for them by men well acquainted with the district; all you have to do is to purchase a few ladders, fix them, and commence working at once; both tutwork men and tributers will be breaking ore at a profitable rate to the shareholders.

HENRY COWLING.

Camborne, Cornwall, Oct. 15.—I beg to state that during the former working of Wheal Abraham Mine I worked the ground of the engine-shaft on tribute, having a rich course of ore 4 to 6 ft. wide, which was sold at £34 per ton. This course of ore was worked to within a few fathoms of East Abraham, and worked 180 fms. deep, the full of ore, averaging 4 to 8 ft. wide. This and other parallel lodes are standing unwrought in East Abraham, and can at once be set on tribute.

RICHARD BENNETT.

Camborne, Cornwall, Sept., 1861.—East Abraham Mine: You ask me for my report of this mining property. First, I would say that I am surprised you have not commenced operations before the summer season is passing away, and nothing doing, and men are asking to take the ground on tribute. The Crenver and Wheal Abraham great champion lodes are going through the centre of your sett; there are three lodes in the adit level that will pay for working, and all you have to do is to put in ladders and you can break a parcel of copper ore immediately. The lodes in the level are oxidising, and the sides of the level are quite green with the oxide of copper. You will have a fine advantage for working, as the Crenver and Wheal Abraham are to be re-worked. I worked in the old Abraham Mine when a young man, and I helped to break from the adit to the 40 fms. level thousands of pounds worth of copper ore within a few fathoms of your ground. I have no objection to take a large interest in the mine when you commence working. I have seen the lodes, and think this to be a splendid property; therefore, I can with confidence recommend the mine. JAMES THOMAS.

Carbarn Cove, Pool, Oct. 15, 1861.—Having a clear day on Saturday, I took the opportunity to go and examine the mining ground which you have been so fortunate as to secure to the east of the old Crenver and Wheal Abraham. And on going on the ground I recollected that my attention had been called to the same mining sett about 13 years before by Capt. J. Lean, of that neighbourhood; but presently he got into a good situation and left, and I left for the United States. I know the ground well, having gone over and examined it before. I am now led to wonder why such a very desirable mining sett should be allowed to remain unwrought so long, being, as it is, in close proximity with the richest mines ever worked in the county of Cornwall, and which, it is now said, will soon be resumed and worked vigorously; if so, your sett will be worked to great advantage. I venture to give it as my opinion that a more promising sett can scarcely be met with in the county of Cornwall. And even if Crenver and Wheal Abraham should not be put to work, there will be many chances of success above the adit, which will soon be 45 fms. from surface as it goes into the hill, where a fine-looking strong lode has been opened on, which I saw; it is from 2 to 2½ ft. wide, producing a good strong iron gossan, underlying south. I am inclined to think that this lode is lying to the north of the other three lodes, and can be cut by a cross-cut from the adit. The outlay in bringing up such an adit must have been very great, and shows the very high opinion the company must have formed of the undertaking; but when their capital became exhausted they were obliged reluctantly to abandon it, consequently all the work done will be available for the next company. I wish you every success in forming your company. WILLIAM PAUL.

THE PROGRESS OF MINING IN 1860, BEING THE SEVENTEENTH ANNUAL REVIEW.

By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1848), *Gleanings among Mines and Miners*, &c.

The SIXTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in the MINING JOURNAL of December 31, 1859, and January 7, 1860.

A FEW COPIES OF THE REVIEW OF 1855, containing Statistics of the Metal Trade, the Dividends and Percentage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also A FEW COPIES OF THE REVIEW OF 1852, 1853, and 1854, MAY BE HAD ON APPLICATION AT MESSRS. WATSON AND CUELL'S Mining Offices, 1, St. Michael's-alley, Cornhill, London.

Also, STATISTICS OF THE MINING INTEREST. By W. H. CUELL.

WATSON AND CUELL'S MINING CIRCULAR.

published every Thursday morning, price 6d. or £1 ls. per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to investors and speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON F.G.S., and published by WATSON AND CUELL, 1, St. Michael's-alley, Cornhill.

N.B. Messrs. WATSON AND CUELL have made a selection of a few dividend and progressive mines, which they have reason to believe will pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

INVESTMENTS IN BRITISH MINES.

MR. MURCHISON'S REVIEW OF BRITISH MINING FOR THE QUARTER ENDING 30th MARCH, 1861, with Particulars of the Principal Dividend and Progressive Mines, Table of the Dividends Paid in the last Five Years, &c., is NOW READY. Price One Shilling. At 117, Bishopsgate-street Within, London, E.C.

Reliable information and advice will at any time be given on application. Also, COPIES OF "BRITISH MINES CONSIDERED AS AN INVESTMENT." By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

Second edition, revised and enlarged, with Map of the British Coal Fields, and numerous illustrations, post 8vo., cloth, 10s.

THE COAL FIELDS OF GREAT BRITAIN: THEIR HISTORY, STRUCTURE, AND RESOURCES, WITH NOTICES OF COAL FIELDS IN OTHER PARTS OF THE WORLD.

By EDWARD HULL, B.A., of the Geological Survey of Great Britain, F.G.S.

A most intelligent, careful, and scholarly description of all the coal fields of the world, undesignated by pedantic technicalities or assumption, and conveyed in good, honest English wording, in a style so agreeable as to elevate a very dry subject into positively agreeable reading.—*Literary Gazette.*

London: Edward Stanford, 6, Charing-cross, S.W.

THE MINERS' MANUAL OF ARITHMETIC AND SURVEYING.

By WILLIAM RICKARD, Teacher of Practical Mining in the late Mining School of Cornwall, and Principal of the Engineering Academy, 4, Myrtle-street South, Liverpool.

Truro: Heard and Son.—London: Longman and Co.; the office of the *Mining Journal*, 26, Fleet-street; of the author, and of all booksellers.

GEOLOGICAL SECTIONS OF THE ORDNANCE SURVEY OF ENGLAND, WALES, AND IRELAND, on three different scales, coloured.

MAPS OF ENGLAND, WALES, SCOTLAND, IRELAND, SPAIN, and OTHER MINERAL DISTRICTS, on various scales. PLANS, SECTIONS, and MAPS LITHOGRAPHED, TRACED, and COLOURED, on Mountebank, on the shortest notice by LAYNE, SON, and Co., Royal Exchange, E.C. Illustrated catalogues may be had on application.

Complete in 3 vols., royal 4to., price £4 14s. 6d., cloth.

TREASURY ON THE STEAM ENGINE: Its Principles, Practice, and Construction, with its Progressive and Present State of Improvement.

Embracing Examples of Locomotive Engines for Railways, practically drawn and explained; Marine Engines for Sea, River, and Canal Service; Stationary Engines employed in Manufacturing Purposes; Engines employed in Mines for Raising Water, or Supplying Towns; the Cornish Pumping Engine, and its several effective duties; Engines for Mill-work, Flour Mills, &c.; High-Pressure and Non-Condensing Engines, Foreign and English. With 228 engravings, and 164 woodcuts and diagrams. London: J. S. Virtue, 294, City-road, and Ivy-lane.

New Edition, in 43 parts at 1s., divisions at 6s., and in 2 vols., cloth gilt, £2 5s.

TOMLINSON'S CYCLOPEDIA OF USEFUL ARTS, MECHANICS, MANUFACTURES, MINING, AND CIVIL ENGINEERING.

With 40 engravings on steel, and 2477 woodcuts. This work includes detailed accounts of the principal Manufacturing Processes, Mechanical Inventions, and Chemical Operations in actual use, either in Great Britain, the continent of Europe, or the United States. London: J. S. Virtue, 294, City-road, and Ivy-lane.

JOINT-STOCK COMPANIES PROMOTED, REPORTS, PROSPECTUSES, NEWSPAPER NOTICES, &c., PREPARED, AND ADVERTISING ECONOMISED, by MR. LEE STEVENS, No. 36, CANNON STREET, LONDON, E.C.

MINING AND ENGINEERING CONTRACTS EFFECTED.

Notices to Correspondents.

* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

ON WINDING-MACHINERY.—Not being able at present to lay my hand either on the Supplement of the *Mining Journal* for Sept. 28, or on a copy of my paper, to which Mr. Ennor and Mr. H. Viner have alluded in last week's Journal, I am obliged to defer until next week a reply to those gentlemen. In the meantime, if the former will take the trouble to read my paper again, he will certainly find that I have not advocated the kibbidge drawing, only to a certain extent, which he himself declares to be good. I beg also to assure the latter that, so far as I am able to judge, I was the same person when I wrote the last part of the paper as I was when I penned the first. I am not aware of any radical change taking place in my identity at that period. When that gentleman introduces his boring-machine to sink our engine-shafts and drive our crosscuts, at the rapid rate of 50 fathoms in 60 days, I shall be, if alive, among the first to hail him as a benefactor to the mining interest of this country.—JOHN TOMKIN: *Pool, Hlogan, Cornwall, Oct. 16.*

BASTY'S CHAIN-PUMP.—Can any of your correspondents inform me whether the new chain supplied by Messrs. Nicholls has removed the doubts which were entertained as to the applicability of this pump for mining purposes?—A. MINE ADVENTURER.

TREFFRY CONSOLS MINE.—My attention, as purser, has been called to a notice of this mine, under the heading of Mining Notabilia, in last week's Journal. Although no name is appended to the notice, there is no difficulty in knowing the writer and his animus. The sett is quite large enough as originally taken up, but as difficulties arise in consequence of any objections on the score of an over-extended. The limited character of the working is referred to. My reply is, that the work carried on is exactly the work recommended by the most competent agents in the county. The writer of the notabilia, perhaps, would have us do what he has done on an adjoining piece of land—put men to work, without judgment, upon a sett not granted, and afterwards omit to pay the men. The only work done on Treffry is sinking a shaft by nine men, and these men were paid the month's cost on Saturday last. I write this in justice to the adventurers, whose property ought not to be damaged by anonymous scribbles.—HENRY WILLS: *Plymouth, Oct. 17.*

REDMOOR MINE.—In last week's Journal I noticed an account of the meeting at Redmoor, on which mine a call of 6d. per share only was made. It occurred to me that this must be a mistake, as it was as early as 1854 that a mine was required only a shilling to pay off all its liabilities must be very nearly paying its own expenses. I accordingly made enquiries respecting this concern, and was informed that at the previous meeting no call whatever was made, and that although a call of 6d. per share has now been made, there was, in fact, no necessity whatever for it, as there was ore enough ready for sale quite sufficient to pay off all liabilities, and leave a balance in hand. Now, will it be believed that in such a mine as this the shares are selling at the low price of 4s. 6d. to 5s. each? yet such is the fact. And this is another convincing proof of the truth of a statement which was made in your Journal a few weeks since. "That there is no reason in mining; or, rather, I would say, that the advantage of mines speculating in some shares and neglect others, without the least exercise of that greatest gift to man—Reason. I will conclude by stating, that as I consider Redmoor a good speculation, I have invested all the spare cash I can command in the purchase of shares. Other speculators can do as they please. A mine that is so nearly paying its own expenses as Redmoor may, with the slightest discovery, and at any moment, become a paying property.—AN ADVENTURER: *Oct. 17.*

GREAT WHEEL ALFRED.—A meeting of the adventurers is to take place on the mine, on Monday, the 21st inst., and I trust that all adventurers will either be there or be represented. I find from Captain Grose, the engineer, that he has repeatedly pointed out (from the commencement) to those who had the management of this mine the insufficiency of the boilers, and that had his suggestions been attended to it would have saved the adventurers between 700 and 800 per month (in other words, about 10,000, since we began to work), at an expense of some 5000, or 6000. Whilst had we had mechanical means for raising and lowering the men it would doubtless have saved us 3000 per month; in other words, near the enormous sum of 40,000. Now, when we consider that the breakages must have cost us full 20,000, the first cost of the machinery 25,000, and the management 10,000, I do not think the Great Wheel Alfred has been so bad a mine, seeing that the foregoing makes 105,000; in other words, some 34,000 more than the amount of the calls.—HENRY VINER.

GREAT WHEEL ALFRED.—Some of the adventurers of this mine take objection to the resolution passed at the last general meeting, confirmatory for ceasing to work the mine, and they call attention by repeated circulars, that the ore raised since that decision was arrived at is in such quantity as ought to leave a profit, but they omit to explain that this is accounted for by more of the reserves being taken away during this time than hitherto. Those who urge the working being continued are chiefly shareholders who have local interests in this being done, apart from what they profess to believe would result from the prosecution of the works, and which, after a longer series of years, has been attended with almost invariable great loss. If those shareholders resident in Cornwall who are anxious to spend more money on the mine will combine, take the machinery and all the plant at a valuation, and pay for the same, they can then carry on the work after their own fashion, and if their favourable expectations are realised they will reap the advantage, as they well deserve to do, and I am sure will have the congratulations of their neglecting brethren. Meanwhile, the committee are bound to carry out the wishes of the majority, cease to work so soon as the notice for discharging the staff shall have expired, and sell the plant; and I would entreat my co-adventurers generally not to be misled by the representations of a few agitators, so as to obstruct the committee in performing their duty.—A SHAREHOLDER.

VENTILATING MACHINERY.—I have seen upon several occasions that the use of machinery for forcing air into collieries to ventilate them, instead of drawing it out, has been advocated in the *Mining Journal*, and think there seems to be some ground for the opinion that more ventilation could be produced with the same machinery by forcing than by suction; but I do not think the monster pump proposed is the best machine for sending in the air. Some years since you described several centrifugal pumps invented, I think, by Messrs. Farney, Gwynne, Appold, and others, and judging from the quantity of water which they raised, I believe that large-sized pumps of similar construction would force in more air than any other machine. If this were tried, I feel convinced that a very considerable improvement in the system of ventilating collieries might be ensured.—G. H. C.

THE IGNEOUS THEORY.—During the past week, in a lecture delivered by Dr. Cumming, at Manchester, upon "The Future of England," that learned divine stated he had recently held a conversation with Sir Roderick Murchison upon the important subject which is now engaging the most serious attention of geologists—whether the centre of the earth is, or ever has been, in a state of molten fire? To make the enquiry more potent, it appears that Dr. Cumming put the question to Sir Roderick thus—"Do you really believe that the centre of the earth is like a burning cauldron?" To which Sir Roderick unequivocally replied—"Most certainly I do, and nobody but an ignorant would dispute it." Pending the discussion upon this important question, this decided, though laconic, opinion from so great an authority must be regarded as a serious blow against the anti-igneous theory.—A. B. C.

GOLD IN NOVA SCOTIA.—Having observed in the Journal of last Saturday an advertisement of the "engineer" of the late Patent Gold Washing Company, offering to take the superintendence of a gold-washing expedition to the gold fields of Nova Scotia, I am induced, as one interested in the late company, to testify to the extraordinary success of this method, which, with many other adventurers, I witnessed, and only desire to bear testimony to its wonderful operation. The whole of the gold is extracted by this process; there is no waste, the cost is inexpensive, and the machines are of such weight and dimensions as to be easily moved about, and they are not costly in the first instance. I will not say more than that the patentee is a man of experience, labour, and great respectability of character and honour.—R. S.

NORTH TRELEATHER (Padstow).—Will any of your readers kindly inform me, through the medium of your Journal, when it is likely the managers of this mine will call a general meeting of the shareholders? as the mine is reported to be worked over eighteen months, and no general meeting has been held, or balance-sheet submitted to them.—A SHAREHOLDER.

RESPIRY COPPER MINING COMPANY.—I have looked in vain in the columns of the Journal for information respecting this mine, and have heard nothing concerning its progress since the purchase of the engine, which was to be erected as speedily as possible; but whether this has been done I am unable to say, and as a considerable time has elapsed since I invested money in the mine, I am naturally anxious to know what has been effected. I regret no information can be obtained from the company, and trust that I have brought the matter to public notice, an answer may be inserted by them in your columns, as to whether they intend going on with the undertaking or turning the money.—A SHAREHOLDER.

NORTH HAVOD SILVER-LEAD MINE.—In the letter of your correspondent, "C. T.," in the Journal of last week, on the North Havod Silver-Lead Mine, the bearing of the beds of metalliferous rock, as laid down by Capt. M. Francis, is said to be at variance with the published report of the Geological Survey, and the impression conveyed is that this has been done by Capt. M. Francis to prove his own purposes, at the expense of the public. Such an insinuation, without proof, should never be introduced in a scientific question; the cause must be weak that descends to personalities, and for want of argument imputes dishonest motives. As far as the public are concerned, what is the fact? One says the rich-bearing bands run north by east and south by west, the other that they run from the south-east by south to the north-west by north—both are agreed that they do run in the one direction or the other, and must of necessity cross the sett; and this fact should satisfy both the public and the shareholders that the mine has most promising features as an undertaking. Looking again, however, at the map which has been called in question, and observing the numerous and well-known productive mines along the course of the pink bands, as laid down by Captain Francis, would it not be just to account for that remarkable fact before he is pronounced in error?—A LOVER OF SCIENCE: *London, Oct. 15.*

WINDING-ENGINES.—We are indebted to the courtesy of our excellent contemporary, the *Engineer*, for the engravings illustrating the description of the Winding Engines recently erected at the Drummore Colliery, published in the Supplement to this week's Journal.

LEAD AND TIN.—The usual Quarterly Sales will be published in next week's Journal. We shall be glad of particulars from purveyors and agents, that the returns may appear correctly.

SUBSCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the *Mining Journal* by ordering it from a bookseller in any of the principal towns of the United States. Mr. Tribner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, OCTOBER 19, 1861.

Every one acquainted with pit machinery, and winding machinery in particular, has felt the want of some simple apparatus for connecting and disconnecting the machine or drum from the steam-engine which drives it, by which it can be safely stopped or set agoing without stopping the engine. Various arrangements have been adopted and tried, such as clutches throwing the teeth out by moving the shaft, and such like contrivances, but all these are troublesome, and cannot be brought into play until the engine is brought to a full stop, or moving with a very slow motion. In no description of mining machinery has this want been more felt than in that for working underground inclines, and we have much pleasure in referring to our Supplement, which contains engravings of a pair of coupled engines and machinery, erected for Mr. JOHN DEANS, jun., at Drummore Colliery, near Edinburgh, wherein all these difficulties have been entirely overcome, and this spirited young coalmaster has the credit of being the first to introduce this important improvement into the district in which his collieries are situated, on a scale sufficiently large to test the invention, the engines being about 50-horse power. The machinery works two inclines, each 500 yards long at a gradient of 1 in 3, each having a single drum, and by connecting the engine to either drum the loaded train of coals is brought up the corresponding incline, while by disconnecting it the empty train runs down by its own gravity. The machinery is so arranged that one or both drums may be in gear, and trains from each incline may be ascending or descending singly or together, and this while the engine is in motion, the disconnecting levers and breaks being of the simplest description, the gearing being that known as ROBERTSON'S Patent Frictional Gearing, which is now being gradually adopted, instead of the common toothed gearing in similar circumstances, for increasing or reducing speed, and for the simplicity of its disconnecting and connecting arrangements. All of us in reading of the earliest locomotive engines have been amused at the wonderfully elaborate contrivances thought to be necessary to give the engine a firm hold of the track, so as to draw the load after it: rack-work, rails, and toothed driving-wheels being at first deemed indispensable, and one ingenious individual actually tried an "iron horse" with iron feet and legs. After many such absurdities, BLACKETT and HADLEY, in 1813, made the important discovery that no such aids are required, but that the plain wheels pressing upon the rail had sufficient grip to overcome the resistance of the train, and since then legs, arms, and teeth have all been thrown aside.

Much in the same way, Mr. ROBERTSON has discovered that it is not necessary to have toothed wheels working into each other to communicate motion, but that by cutting vertical grooves in the face of plain wheels, bringing them into contact with each other, the friction is sufficient to any weight of which the engine is capable. This invention has now been some years in operation, and the inventor by experience has found out the proper angles of the wedge-shaped grooves suitable to the speed of the gearing, and its application is now becoming general. Its great advantages over toothed gearing generally appear to be its smooth action, comparative non-liability of fracture, freedom from jolting and back-lash, and the ready means it affords of connecting and disconnecting the shafts or machines, by drawing the wheels into or out of contact when they are working at high speeds without concussion or jarring action. Also the simple means of increasing or decreasing speeds; thus, for increasing speeds it is simply necessary to turn the requisite grooves on the face of the fly-wheel, and allowing it to gear into another smaller pinion of the required size, and the speed is brought up at once—the reverse is necessary for reducing speeds. It is, consequently, being rapidly adopted for pit machinery, rolling-mills, circular saws, cranes, and such like.

Another beautifully simple contrivance, specially adapted for throwing out and in gear, is the eccentric bush, explained in the engravings, where by a slight movement the drum is either brought in contact with the engine, or by a reverse movement may be brought in contact with the break-block, and the rapidity and certainty with which this change can be effected makes it of importance in all cases, but more especially it is of great benefit where the gradient of the incline is irregular or level spaces, or portions of it may incline in the opposite direction, as frequently occurs in underground inclines, and where it is necessary to use a tail-rope and two drums, for the train can be drawn over the undulating portion by shifting the power from one drum to the other. We look upon this as a great feature in the invention. Another important saving is, that the wheels slip if more than the required strain comes upon them, and if the trucks were to get off the rails, or from any other cause more than the usual strain were to be applied, no breakage, at least not the same amount of breakage, would

ensue. Upon the whole, we look upon the introduction of this new mode as a step in the right direction, and we beg to direct the attention of our readers to the engravings we have inserted of them.

In perusing the prospectus of the eleventh session, just commenced, of the GOVERNMENT SCHOOL OF MINES, it is gratifying to find that one or two important changes have been introduced in the statutes of the Institution; and that these changes will tend to give students of the School who have attained proficiency in the sciences allied to mining a more defined position in the scientific and industrial world; they will, at the same time, cause the advantages of a Government Mining School to become available to a very large proportion of the class for whom it was originally intended. According to the previous regulations, no position in the School could be attained without a length of residence which few practical men could undertake themselves, or afford to allow those dependent upon them, the consequence being that working miners very generally entertained the opinion that the tendency of the School was rather to injure them than otherwise, whilst on the other hand there was the very justifiable complaint that, inasmuch as the School conferred no distinctive degree, the competent student, unless a medalist or prizeman, possessed little advantage over any who had escaped plucking.

The degree of "Associate of the Government School of Mines" has now been established, and will be conferred only upon those who possess ample scientific knowledge to entitle them to be considered proficient in all (except practical experience) calculated to enable them to be useful to their employers. The ordinary student desirous of becoming a candidate for the "Associateship" must, during the first year, acquire a sufficient knowledge of inorganic chemistry, with practice in the laboratory; of physics, and of mechanical drawings; and during the second year he must continue his mechanical drawing, and become proficient in mineralogy and geology. It is justly considered that these subjects are equally necessary to the student whether his career in after-life is to be in connection with mining, metallurgy, or geological surveying; but that no student shall be compelled to study that which he may never afterwards require, the third year's course is wisely arranged in three divisions—the Mining division, comprising mining, assaying, and applied mechanics; the Metallurgical division, including metallurgy and laboratory practice therein, applied mechanics, and metallurgical practice generally; and the Geological division, embracing Natural History and Palaeontology, and Palaeontological demonstrations. Of these three divisions the student may select either one, and pass his final examinations in the selected division only.

But we now come to a regulation which will enable the diligent student, although unable to devote more than three years to his academic studies, to couple with his scientific knowledge a not inconsiderable amount of practice; the course of instruction, though distributed, by the arrangement we have referred to, over three years, may, upon certain conditions, be passed through in two years—this allows time for visiting mines or smelting works, and practically examining the mode of working pursued. A year thus spent would undoubtedly enable the student far better to appreciate the scientific instruction to be imparted to him during the ensuing two years, and he would have little difficulty in acquiring, during his wanderings for practice, the knowledge which would otherwise have to be gained in Jermyn-street; he would give his attention to the theoretical portions of inorganic chemistry, physics, mineralogy, and geology, and to mechanical drawing, by which means ample opportunity would be left him to procure the necessary amount of laboratory practice, &c., at the School to enable him to pass, after one year's regular study, the examination in the subjects laid down for the first two years. These examinations passed, he is permitted at once to enter the third year's courses, at the end of which he may become a candidate for the Associateship. As little doubt can be entertained that the majority of the students will avail themselves of this excellent opportunity of combining practical and scientific knowledge, we may fairly anticipate that ere long the title of "Associate of the Government School of Mines" will become an enviable distinction, from the far greater confidence which capitalists and the public will place in their superior ability to conduct mining, metallurgical, and geological undertakings.

The autumn has now closed, and professional men and men of business who have been seeking healthful change and recreation in every nook of Europe have returned to their labours for the winter. Never within the memory of the present generation has a winter commenced which promised to be so eventful. Before another summer arrives it will be practically decided whether the United States are to be again patched up by force of arms, or permanently separated into at least two—possibly more—rival, and probably bitterly hostile, confederacies. Within a like period, it is not unlikely that the eternal "Roman question" itself may be solved, and that the most ancient, and more than once the most arrogant, sovereign power in Europe—probably in the world—may be reduced to a state of vassalage. Nor do these great probable changes stand alone. On the contrary, on almost every side, except within the happy circle of the realms of the British Crown, we see a restless ambition, or desire of change, working in most states and populations, and threatening to convulse half the world with the horrors of foreign or civil war. The devouring ambition of France, worked out by a crooked and unscrupulous policy, backed by force well nigh overwhelming, keeps all Europe—including even England itself—armed to the teeth, and in a state of fitful alarm. The disaffection of Hungary may any day lead to the destruction of Austria as a great power, and leave France and Russia the arbiters of the Continent. In Spain we certainly see the hopeful reawakening of a great people, which would be highly satisfactory were it not slightly marred by the evident ambition which accompanies it, and which threatens to breed fresh complications on the American continent; for that Spain meditates the re-conquest of some at least of her old dependencies is now evident.

In the midst of all this, England with her colonies and dependencies alone stands undisturbed by thirst of ambition on the one hand, or the dread of internal discontent on the other. All that the largest ambition of this country desires is that we shall be allowed to retain, undisturbed, what we now possess; no one doubts but to this end only all our present extensive armaments are directed, and no Englishman fears but that they will be successful in it.

Free from the fear of internal commotions, free from the dangers of reverse which always hang over ambitious and encroaching nations, and confident in our moderation and our power to defend ourselves against any probable combination of enemies, England might at the present time be secure of unequalled prosperity, were it not that the advance of commerce and civilisation has so entwined the interest of nations as to make our prosperity in a great measure dependent on that of other countries. According to old doctrines, every foreign nation was to be regarded as a rival, over whose debasement or impoverishment we were to rejoice. Experience, as well as sound philosophy, has long since exploded this fallacy; and we have learned to regard other nations as suppliers of articles which it has now become matter of necessity for us to buy, and customers for goods of ours which it has become necessary for us to sell. It would be difficult to calculate the losses which the present disturbed state of the world inflicts upon British industry and British commerce. But no other cause, or combination of causes, can equal that arising from the present civil war in the United States. The partial interruption and general stagnation of the trade with one of our greatest customers would be bad enough, but the evil of the American difficulty is worse, as it cuts off the supply of the raw material for the greatest branch of English industry. The interruption of the regular supply of cotton is an evil so great and so unanticipated that we have yet scarcely realised what its practical effect will be. If it really should cause any general suspension in the cotton manufacturing industry of South Lancashire and the West Riding, even for a few months, it would inflict the greatest social disasters we have had to contend with since the Irish famine. There are many reasons, however, for believing that such an extreme danger may pass away, and that although the cotton manufacturing industry may be seriously interrupted and crippled, yet that the supplies from other countries than America may be such as will enable the manufacturers to avoid the terrible necessity of a general closing of the mills. If even such an evil should come upon us, the English nation may be expected to meet it vigorously and manfully, and alleviate the inevitable destitution which would accompany it by national subscription, and if necessary even by a Government loan, as in the case of the Irish famine. A nation that can afford to increase its warlike expenditure by 10 or 15 millions a-year, without having recourse to loans, may well be able to meet for a few months even the worst evils that would follow from a cotton famine. Therefore, although the prospect of even the possibility of such a contingency must cause the approach of the coming winter to be regarded with deep anxiety, there is no reason to be unnecessarily alarmed or panic-stricken; the evil can only be one of short duration, and the resources of

England are ample, if the worst should come to the worst, to supply the workpeople thrown out of employment with at least the means of subsistence until our cotton supply is restored.

MINING CONGRESS OF VIENNA—No. II.

Mr. Schott exhibited to the meeting a geological map, recently constructed, of the district of Cracow. The two chiefly important formations of this region, as well as the occurrence of coal and metallic ores, present a great resemblance to the conditions of Prussian-Silesia, and it would appear probable that with the introduction of improved means of transit, and of associated capital, the Cracow territory might by degrees exhibit a similar industrial activity to that exhibited in the adjoining Prussian-Silesia. The coal formation has been explored in the Cracow district over a length of about 14 miles, and a breadth of 12 miles. As many as 22 different seams, with thicknesses of from 5 to 24 feet, have been proved, most of which crop out to the surface. At Jaworzno especially, 13 seams, with a total thickness of 100 feet, have been opened, and the quantity of coal in this portion of the field alone is estimated at 5000 millions of centners. The base of the coal formation has not been reached. The clay ironstones do not pay for raising. The formation termed the muschelkalk (which is absent in the English series) appears in a band of from 4 to 9 miles in breadth, and consists of the muschelkalk, or shell-limestone proper, and the dolomite, which overlies it. Between the two occur the metalliferous repositories of the trias, brown iron ore, and calamine—the first in layers of a few inches to 2 or 3 feet in thickness, the latter in threads, nests, and strings, of 2 to 18 in. The calamine, of the variety known in Silesia as "red calamine," is always accompanied by more or less galena. Besides these formations, Mr. Schott remarked on the occurrence of the variegated sandstone and Jura beds, and gave a detailed description of the calamine-works at Diagosin, in which zinc blende is also met with. In connection with Mr. Schott's lecture, Director Hohenegger communicated the results of borings which had been made under his direction in Austrian-Silesia and the Cracow district. The borings in search of calamine in the last-mentioned district, some of them to a depth of 130 fms., have discovered beds with a thickness up to 2 fathoms, and are especially important on account of the beautiful geological results which they yielded. The series of formations from below upwards is as follows:—Carboniferous formation; red sandstones and clays, with arancarites, true rothliegendes; dolomitic strata, belonging to the bunter sandstein; muschelkalk, in two divisions; dolomite of the trias; red and green clays, corresponding to the clay ironstone beds between the trias and brown Jura in Prussia; white Jura limestone, the upper beds of which are precisely similar to those of Wurtemberg. The boring at Peterswalde, in Silesia, has now reached the depth of 257 fathoms, or 266 English fathoms, after reaching the coal formation at the 100th fathom. It has intersected up to the present time five or six of the twenty seams which are known to exist in the neighbourhood. Mr. Hohenegger exhibited a solid cylindrical piece of the coal measure grit, which had been brought up by the boring-tool. It was 4 in. in diameter, and showed distinct indications of the bedding or planes of stratification, yielding thus, by its throwing a light on the position of the beds, a most valuable aid towards the future working of the field. Mr. Andrée, director of Baron Rothschild's collieries at Wittkowitz, stated that he had seen this bore-hole in progress, and was so much impressed with the surprising efficacy of the operations that he begged for further details of the expenses. Mr. Hohenegger replied that the cost of the bore-hole had amounted to only 13,000 fl. (1246*l.*), and that he had employed none but very simple arrangements in its execution.

SUPERHEATING STEAM.

Brief reference was made in last week's *Mining Journal* to an improved superheating apparatus, invented by Mr. Wm. Butlin, of the Vulcan Engine-works, Northampton, and we are now enabled to enter somewhat more fully into detail. The invention has been successfully applied to marine, stationary, and portable boilers, and in many cases it has been found that an economy of at least 30 per cent. in fuel, whilst one-fourth less feed water is required for the boiler, and additional power is obtained from the engine. For marine boilers the apparatus may be used either for superheating the steam or for heating the feed-water. With the ordinary multitubular boiler the products of combustion pass through the tubes into the chimney, and it is at the chimney end of the tubes that the apparatus is applied. It consists of a chamber having tubes in it precisely similar to the tubes in the boiler, so that the mouths of the tubes may be arranged exactly opposite each other. The upper part of this chamber is at one end in communication with the steam space in the boiler, whilst the other end opens into the pipe which conveys the superheated steam to the cylinder of the engine. The steam which enters from the boiler must pass through the spaces formed by the tubes passing through the superheating apparatus before reaching the cylinder, and thereby becomes superheated—a tube fitted with a valve connects the superheated steam supply-pipe with the saturated steam in the boiler space, so that by simply opening or closing the valve steam of any degree of dryness can be employed.

Several patents have been secured for superheating steam, and have answered well, so far as economising fuel is concerned, but the great objection to one and all is the same—that they are not durable. To remedy this evil, and in order to prevent the superheating chamber from being injured by the heat of the furnaces while the steam is being first raised to its required pressure, it is, according to Mr. Butlin's invention, filled (on or before commencing to fire up) with water from the boiler, through a pipe which establishes a communication between the lower part of the chamber and the water space of the boiler. After this is accomplished this communication may be closed by means of a cock, and when steam is observed to be produced the water is allowed to escape from the chamber by a discharge-pipe. In using the apparatus for heating feed water, Mr. Butlin dispenses with the pipes leading to the steam space in the boiler, and to the steam cylinders of engines. The chamber is connected on the one hand with the feed-pump, and on the other with the water space of the boiler, these connections being made at opposite ends of the heater. The cost of attaching the superheater to boilers varies from 40*s.* to 50*s.* per horse, and the royalty is from 4*s.* to 10*s.* per horse, according to the size of the boiler. The invention has already been practically tested, and has given every satisfaction, as will be seen from the very flattering testimonials published in our advertising columns. Models of the contrivance will shortly be deposited at our office, when they can be inspected by all interested in the economic generation of steam.

OUR COMMERCIAL ARRANGEMENTS WITH THE ZOLLVEREIN AND BELGIUM.—The secretary of the Newcastle Chamber of Commerce, at the monthly meeting, said that so far as he was aware little progress had been made in the efforts set on foot recently to obtain a restoration of the Zollverein tariff to the principle on which it was originally framed, and which had been violated by retaining the same rates of specific duty on articles which had seriously fallen in value since the rates were fixed. The original understanding was that the specific duties should not exceed 10 per cent. on the value of the imports, but by retaining the original specific duties many articles—soda and alkali for instance—paid duties varying from 36 to 60 per cent. In reference to Belgium, Mr. Brockett informed the meeting that a very strong expression of public opinion was being made in various Belgian towns in favour of a liberal Anglo-Belgian treaty, and this, it was to be hoped, would materially assist the negotiations which were at present going on between the two Governments.

THE DYKEHEAD COAL PIT ACCIDENT.—At Hamilton Sheriff's Court, near Glasgow, Richard Graham, a pitman of Larkhall, sued Messrs. Wilson and Co., of the Summerlee Ironworks, and coalmasters, Dykehead, to recover 12*l.* damages, which, according to the summons, was "sustained by the pursuer in consequence of his being instructed, entrusted, and employed by the defendants, particularly by Mr. Walter Neilson, a partner of that firm, and others for whom they are responsible, on or about Aug. 7, to descend their pit, commonly called the Summerlee Pit, on the lands of Dykehead, while the same or part thereof was on fire, in order to aid in rescuing from destruction several of the defendants' workmen below in the pit at that time, and engaging to give him ample remuneration if he did so, with which instructions the pursuer complied, at the imminent risk of his own life (and was fortunate enough to save himself), whereby he had a suit of clothes burned and destroyed, and also sustained bodily injuries, which rendered him unfit for work for a period of at least eight days." Mr. Burns, on behalf of Messrs. Wilson, said that no party regretted the circumstances of the unfortunate occurrence more deeply than the defendants themselves, who had afforded voluntary assistance to the sufferers, and others engaged at the time of the accident in the shaft, in the shape of cordials, flannels, &c., and subsequently for funeral expenses and gratuities to the sufferers to the amount of 139*l.* odd. The pursuer was not the only man who had ventured forward and descended the pit, half-a-dozen men had done more in that way than he had attempted to do. Graham had been frequently desired to go to Glasgow, and meet the company; but he chose a different course, and raised last court-day a summons for 5*l.* damages. This item the defendants had agreed not to dispute; but the pursuer had thought proper to withdraw that action, and

institute the present action for 12*l.* As the defendants had satisfied most of those parties who had volunteered and rendered assistance in a similar manner as pursuer had done, by paying each of them sums averaging from 3*l.* and upwards, he was now ready to tender the pursuer the sum of 3*l.*; not because he deserved that amount, but only as a recompense for his services, which were not so extensive as those which Hunter and others had performed along with him.—Mr. Barclay, for the pursuer Graham, said it was an ungracious act to enter appearance and defend this action. The fact of the defendants having, by way of compromise and compensation, paid the sum of 139*l.*, in behalf of the widows and orphans, and other sufferers, said very little indeed for their liberality. A jury would, in the circumstances, have awarded each a larger sum. That they had distributed the large sum of from 15*l.* to 20*l.* amongst those parties who assisted to relieve the poor sufferers underground at the time of the accident with sums of 3*l.* and under, spoke very meagrely in support of their sorrow and sympathy. Such statements as those put forth by the defendants were quite irrelevant to the matter before the Court, which was simply this—did not the pursuer perform the work and render the hazardous services stated by himself, and were those for the benefit and in the employment of the defendants, and reasonable in amount? The paltry sum of 3*l.*, now offered was totally absurd. After some discussion, witnesses not having been summoned, the sheriff adjourned the case for a fortnight, when evidence on the subject is to be taken.

AWFUL COLLIERY ACCIDENT IN FRANCE.—A terrific accident occurred on Sunday afternoon in a coal mine at Besseges, in the Gard. The mine having been flooded by the late rains, a landslip took place, and more than 100 workmen were either smothered or drowned. The Prefect of the Gard, having been apprised of the circumstances at ten at night, left his residence, accompanied by several public functionaries, and by the chief engineer of the department, and proceeded to the mine in a special train. On arriving at the scene of the disaster, it was ascertained that 117 miners were missing, and that 1,300,000 cubic yards of water had rushed into the mine, and caused numerous landslips. The engineers are of opinion that it will require three months to pump out the water. The authorities returned to Nîmes profoundly afflicted. M. Dalimbert, the Prefect, immediately opened a subscription for the relief of the numerous families who are reduced to a state of indigence by the death of their husbands and sons. Public rumour casts the blame on the engineers, but the fact is that a waterspout burst, and caused a torrent, which rushed into the mine with such violence and rapidity that even the overmen had not time to save themselves. An explosion of gas took place at the same time, by which a portion of the mine was blown up. The telegraphic despatches from Montpellier state that every effort is being made to rescue the workmen buried by the accident in the Laille Mine, and that it was hoped by the evening of the 14th communication would be established with some of the still living sufferers. But more detailed accounts from the scene of the catastrophe are much less hopeful than the semi-official despatches. Though every means of rescuing the victims have been taken, there is but little probability of saving the lives of those who are buried in the mine. The utmost that can be done is to bring the dead bodies to the surface. The number of workmen missing on a call of the roll, and considered as killed by the accident, is nearly 300.

REPORT FROM NORTHUMBERLAND AND DURHAM.

OCT. 17.—The Coal Trade continues steady, but certainly not so brisk as is usually the case at this season of the year. Other branches of trade are extremely dull. The making of steam-engines, a staple trade on the Tyne, is dull comparatively at present. The "compound engine," which consists of the high-pressure and low-pressure cylinder combined, is coming much into favour here. The saving of fuel arising from its use is indeed great, which sufficiently accounts for the preference. The late invention of Mr. Weallens, of the Stephenson Works, Newcastle, which still further perfects this kind of engine, will cause its more general adoption. Some good orders are on hand for this kind of engine at present. The late invention of Mr. Weallens consists in a simple and effective arrangement for starting and reversing the engines. This is effected by working the slide of the lower pressure cylinder by means of a link motion, or by a wedge motion, this motion being entirely independent of the valve motion for the high-pressure cylinder. For the convenience of starting the engine, a cock or valve is used to charge the low-pressure slide chest with high-pressure steam, this steam being admitted to the desired side of the piston by the above-mentioned valve motion. After the engine is started the cock or valve is closed, and the low-pressure cylinder takes steam from the high-pressure exhaust, in the usual way of compound engines. In order to prevent any excess of steam pressure when starting the engine, by admitting high-pressure steam into the low-pressure valve chest, a safety-valve is placed on or in connection with the low-pressure slide chest, this safety-valve being arranged so as to blow off at any desired pressure, thus preventing any chance of injury to the low-pressure machinery.

It is gratifying to know that this great and important coal field will be fully and fairly represented in the forthcoming International Exhibition, definite arrangements having been made to effect this. A meeting of the Coal Trade of Northumberland and Durham was held a few days ago (Mr. H. Taylor in the chair), when the following resolutions were unanimously adopted:—That it is desirable that the following plans, specimens, and models be prepared:—1. A plan of the entire district of Northumberland and Durham.—2. Specimens of the different qualities of coal—household bituminous coal, steam coal, manufacturing coal, gas coal, and coking coal.—3. Models: Of modes of ventilation, of working coals, of pit shaft, including raising coal and water; of screens, and other apparatus at bank; of mode of shipment, of mode of delivery at London. That the sum of 200*l.* be placed at the disposal of the committee for the above purposes. The export coal trade for September from the north-eastern ports are published, and show generally a very considerable falling off as compared with the corresponding month last year. This, however, is not so discouraging as it may appear, as the result of any one month must always be variable, owing to the state of the weather and various other causes. When the account for the year is made out we have no doubt that they will present a favourable appearance. The total exports from the north-eastern ports are 330,121 tons of coal, against 392,376 tons in September last year: thus showing a decrease of no less than 62,255 tons. Of coke, 21,187 tons were exported, against 19,733 tons in September, 1860: thus showing an increase in this article of 1454 tons.

A proposal of the utmost importance to the improved working and increased safety of coal mines has been made by Dr. John Taylor, of Glasgow—to light mines by means of electricity. He suggests the employment of hermetically sealed vacuum tubes, which can now be steadily illuminated by means of the induction current from the Ruhmkorff coil and similar apparatus. Those luminous tubes could be suspended in the centre of the chamber, and if accidentally broken no harm would ensue but the extinction of the light, as the brush from the exposed end of the wire of the voltaic battery would not ignite a gaseous mixture. The battery could be kept in a distant part of the intake passage, where no danger of explosion would occur; and all that would be required would be the renewal of the exciting liquor. Dr. Taylor also figures and describes an apparatus, devised for the purpose of constantly indicating the proportion of fire-damp in the atmosphere of coal mines, and for giving alarm when the quantity approaches the explosive point. The aid we have already received from the researches of scientific men in economising and rendering safe the working of coal mines has been immense, although it must be confessed that the results have not been in proportion to the exertions that have been made by such men. Their attempts have failed from various causes, sometimes owing to the crudity of their notions, the want of practical knowledge; and it has been pretty freely expressed as an opinion that prejudice on the part of Practicals has materially obstructed them. The present means of lighting mines is confined to two modes—first, the candle, or open light; secondly, the safety-lamp. The former mode must be always objectionable and dangerous in fiery mines, however good the ventilation may be. The extent of the mines, and the danger from sudden discharges of gas, render it necessary to use the safety-lamp. This, again, is liable to many objections. The light given is deficient, and with all the care that can be taken, is not free from danger. But its invention was an immense stride from the naked light, and we owe this to the genius of the great chemist, Davy. It is not, therefore, utopian to expect that we may get something as much superior to the Davy, in time, as the latter was to the naked light. Now, the proposal of Dr. Taylor appears to achieve the great desideratum of light and safety almost completely. Not, indeed, to supersede the safety-lamp entirely, as the lights are fixed and stationary; yet this would be a most valuable auxiliary to the safety-lamp, if they could be suspended in the main galleries and bords—these are the main portions of a mine. If this can be really accomplished, to get a good light without any danger of explosion, even in case of breakage, as he points out, the only question remaining is as to its practical application and cost. At any rate, it appears to be well worth a trial, and if successful in every respect, it would, indeed, mark a new era in the progress of mining science. The other purpose which Dr. Taylor proposes to effect—that is an apparatus "to indicate the proportion of fire-damp in the atmosphere in coal mines"—is scarcely less important. We can scarcely conceive any greater addition to the means of safe working in coal mines than an apparatus of the kind indicated, presuming that it can be easily applied and certain in its indications. Supposing that we had a register of the state of main returns in all the fiery mines in the kingdom, and of the district returns also, taken at any particular time or any number of times, this knowledge might be turned to most excellent account. Supposing the Government Inspectors had such an account or register, would it not be of incalculable service to them? The means at disposal at present for acquiring a knowledge of the real state of the returns are scarcely sufficiently precise. The means used are by observing the appearance of the candle or the safety-lamp, and

the practical man can only determine approximately. His ideas are, at best, vague. For instance, in examining the state of the air in a mine, scarcely any two practical men will agree as to the margin that exists on the side of safety. If the apparatus of Mr. Taylor can be made sufficiently portable, and really precise in its results, it does appear that it would be of immense service. Supposing the exact state of the atmosphere in fiery mines to be accurately determined, it would be seen at once, taking into consideration the state of the atmosphere at the time, what, under ordinary circumstances, is the state of the mines, a kind of knowledge which has, up to the present time, never really been arrived at. The existence of reservoirs of gas, and sudden discharges of the same, would only then remain to be considered in calculating the contingencies likely to arise in the conducting of coal mines, so far as gas explosions are concerned.

The visit of Earl Russell to Newcastle has caused some agreeable excitement. A long period has elapsed since the coal metropolis of the North was honoured by the presence of such a number of nobles. He was entertained at dinner on Monday, when the Earl of Durham, who is largely interested in coal mines, occupied the chair. It is scarcely necessary to say that the noble Earl has been received by all ranks and classes with the greatest enthusiasm.

REPORT FROM MONMOUTH AND SOUTH WALES.

OCT. 17.—The difficulty of securing vessels is the universal complaint of shippers. At the three ports there are numerous orders now on hand, which cannot be executed in consequence of the want of ships. The coasting trade suffers more severely than the foreign from this serious difficulty. Freight continues high, and, until the political world wears a more peaceful aspect, it is quite evident that they will continue so. At the meeting of the Swansea Harbour trustees, on Monday, a report was read from Mr. Abernethy, in reference to the deepening of the entrance channel, and the probable cost. The report stated that the channel could be deepened to the extent of 3½ feet, the cost of which, together with the stone piers, would be about 20,000l. Mr. Tripp moved the adoption of the report, which was agreed to. He stated it to be his intention to bring the matter formally before the trustees at their next meeting.

Several accidents have occurred during the past week. One of the sufferers by the late explosion at the Duffryn Pit has died from his injuries, and an inquest was held on the body on Thursday last, at the Angel Hotel, Merthyr, before Mr. Overton, the coroner, and a respectable panel of jurymen. Mr. Evans, the Inspector of Mines for the district, Mr. Laverack, the agent of the colliery, and other scientific gentlemen were present. Mr. Laverack produced a plan of the workings, and pointed out where the explosion occurred. The coroner said the injured man could not attend to give evidence that day, and the inquest was adjourned to Thursday. On Saturday an inquest was held at the ship Inn, Llanvynnydd, before the coroner, Mr. Bonville, on the body of John Davies, a collier employed at the Cwmffilan Pit, Llanelli. On the previous Thursday he went to work at the usual time. About 9 o'clock he was engaged at one of the crossings, when about 2 tons of coal fell upon him. The deceased's brother, a workman named William Bowen, immediately cleared off the coal, but Davies was quite dead. The inquest was adjourned until Monday, the 21st inst., in order that the Government Inspector should be present. Two slight accidents occurred last week at the Copper Works, Llanelli, but the injured parties are progressing favourably.

The strike still continues at Abercrombie, and there is no likelihood of its speedy termination. An extra number of police are now stationed in the town and neighbourhood, the late riots being the cause of this increased precaution. Work is entirely suspended at the pit, and several of the officers have been discharged. Even the coal to the pumping-engine is obliged to be brought from the company's other pits. Mr. Owen, the solicitor to the men who have been committed to take their trial for riot at the next assizes, has this week made an application to a judge in chambers for their liberation on bail. Mr. Colborne, on behalf of the Ebbw Vale Company, opposed the application. Several affidavits were made on each side, and the prosecutors alleged that as there were 30 of the rioters not apprehended, it would be highly injudicious to grant bail. The judge expressed an opinion that the prosecution must make out a very strong case before he could refuse responsible bail, as he would object its giving effect to some of the attendance of the prisoners at the next assizes. The application was heard on Tuesday and Wednesday, but the decision is not yet known.

The week is devoid of any mining intelligence of interest. The Mynydd Company, Llantrisant, are seriously thinking of erecting two blast-furnaces, for the purpose of manufacturing pig-iron on the spot. This will be the only means of properly developing the rich iron ores of the neighbourhood. The Brecon Railway is being energetically pushed forward, and by next spring it is expected that the line will be ready for traffic. Another rich mining field will be opened when once the railway is completed, and both Newport and Cardiff cannot fail to be considerably benefited by the increased trade.

THE NEATH SHIPPING TRADE, for the month of September, was as follows:—Number of vessels, 176, of 12,862 tons register.—Imports: 1968 tons of iron ore, 3023 tons of copper ore, 70,000 bricks, 125 tons of slate, 175 tons of pit-wood, 116 tons of flour, 1637 quarters of oats, 925 quarters of barley, 112 quarters of malt, and sundry other goods.—Exports: 17,515 tons of coal and culm, 1151 tons of bar and pig-iron, 134 tons of copper, 77,500 fire-bricks, and 95 tons of tin-plates. The above return does not include shipments in the dock.

The Aberdare correspondent of the *Swansea Herald* writes:—The coal trade in the upper portion of the valley is still moderately active, and most of the works in the neighbourhood are working well. The slight improvement which has taken place in the iron market has not been without its effect on the coal trade, and "men of business" breathe freer than they have done for a good while. In the best-informed circles opinion prevails that we shall enjoy a brisk coal trade over the winter, and as to the sister branch, it certainly will not get worse. On Wednesday last the colliers charged with having caused a riot in Aberdare had their final hearing before the local magistrates, and were committed. The following vessels have arrived at Swansea with cargoes from foreign ports this week:—*Cubana*, from Quayacan, with 590 tons copper in pigs, 9 tons of silver ore (value 4500l.), 12 tons of cobalt ore, and 80 tons of copper ore, for H. Bath and Son; *Maria Aranda*, from Camilla, with 140 tons of zinc ore, for Vivian and Sons. The smack *Emily*, Capt. Thomas, carried on Wednesday last a Bristol railway iron, 134 tons of copper, 77,500 fire-bricks, and 95 tons of tin-plates. The works are, we are informed, in a flourishing condition, being a great benefit to the locality.

THE SOUTH MOSTYN EXPLOSION.—On Thursday several witnesses were examined before the coroner, and the inquest has been again adjourned. Jacob Hughes deposed that when he came up about five o'clock the previous evening the air was as good as he had ever seen it. He did not see any with naked lights, and there were no marks of burns on the bodies when they were recovered from the mine. The airways had been enlarged within the last few months, and were 5 ft. square at the time of the accident. No death had taken place in the Mostyn Colliery before for nine years and two months—the fan was then in use.—Edward Hughes, the engine driver, deposed that when the men were let down he observed that they all had safety-lamps, which were locked.—Thos. Jones, collier, who was at work in the pit, said the air was very good at the time.—William Lloyd (who had charge of the fan), in reply to the coroner, said that there was lighting in the beginning of the night, but that he did not notice any when the explosion took place. He never saw anything like fire-damp about the fan.—The general opinion of the witnesses appears to be in favour of the fan as compared with the furnace, but it was elicited in the evidence of Wm. Lloyd that he had seen evidence of the fan having been on fire before. It was a year since that he saw the marks of fire on the fan. He had told the shaft during the night preceding the accident, and had never known the fan to fire through friction. The driving-strap had broken during the night, and had been repaired, but no naked light was used by which the fan could have been fired. Mr. Higson, the Government Inspector, expressed his opinion that the fan was not used by him in repairing the fan, and said he considered it to be in perfect order; he did not believe it had fired the gas. He further stated that rumours were afloat that the fan was in the constant habit of taking fire, and that such rumours ought to be traced to their source.—It was inferred that the explosion might have been caused by sparks or flames coming from the machinery, but Mr. Eytton explained that the fan was not a driving one but a suction one, producing a vacuum.—Mr. Higson said that since the jury met before he had been down the pit four times, but he was unable to go through it, in consequence of the great quantities of exceedingly strong gas which still existed. It was highly important that a full, fair, and impartial examination of the whole of the modes of operation of the underground should be made, and that the giving off of gas and various other matters should be enquired into. That could not be accomplished until the mine was free from gas, and the ventilation restored. He, therefore, requested that the enquiry should be adjourned for the purposes he had stated.—The coroner thought the fullest investigation should take place, and ultimately the enquiry was adjourned. We may mention that Mr. R. H. Hughes, whose invention has been frequently referred to in the *Mining Journal*, was present at the inquest, with the desire of explaining his invention, and showing how by its adoption similar calamities would be impossible.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

OCT. 17.—The quarterly meeting of the ironmasters terminated on Saturday, and, on the whole, the attendance has been much smaller than usual. The trade of the district is gradually improving, but commercial men are beginning to fear that the anticipated failure of the cotton supply will have a most injurious effect upon the industry of our manufacturing districts, and most influential meetings are being held with the view of obtaining a supply from Africa. In Manchester and Lancashire generally the mills are working short time, whilst some few have stopped altogether. Notwithstanding this unfavourable circumstance, a fair amount of business has been done, consumers purchasing under the impression that rates will not be lower. For boiler-plates, railway wheels and springs there is a good demand; for rails there is less enquiry in these counties. The North Yorkshire district is becoming a most important one with regard to the export trade, as well as in the increase of its ironworks, which are now in progress. During two days last week from Cleveland no less a quantity than 1600 tons of pig-iron were exported to the Mediterranean, the Baltic, and the German markets. The locality is also obtaining a large share of the contracts for railway and bar-iron. The new furnaces just built by Messrs. Dunning and Co., at Cargo Fleet, were tapped on Thursday. In about a month the new furnaces built by Mr. Ralph Ward Jackson, at South Stockton, will be in full blast. A jetty is being built on the Tees, which is expected to work a complete transformation at Port Clarence. Mr. Jackson intends to run a large barge across the Tees from his jetty, which will carry 324 tons of ironstone. The vessel intended for this traffic was completed last week. Considerable anxiety prevails with regard to the continuance of the Cornish ironworks. The liquidators of the pole of the Cornish and Durham District Bank intend to unite with the mortgages for the realisation of the securities of the works and the dissolution of the company. In the event of the works being stopped 20,000 persons will be thrown upon the labour market, and a great blow will be struck at the trading interests of this important district.

The Steel Trade affords some indication of increased activity, both as regards the home and foreign demand, and the only obstacle to a thoroughly brisk business is the uncertainty of the cotton supply. Purchases are made with great caution. Considerable orders for rails have been received in Sheffield from Spain. The French demand for cranks is steadily improving. Orders have been received more freely from South America, and considerable orders for implements of war have been received from the States. The stove-plate manufacturers of Rotherham are moderately employed, and the extensive brass-works of Messrs. Guest and Co. are very busy.

The New Tipton Colliery Company have just got down to the black shale coal, which is said to be of excellent quality.

After several years' labour, the colliery shafts at High Park, near Nottingham, the estate of Lady Palmerston, have hit upon an excellent vein of coal. To commemorate the event, Messrs. Barber, Walker, and Co., owners of the colliery, entertained the whole of their workpeople on Tuesday to a grand festival, Mr. T. Barber occupying the chair. The number of persons present was about 1600, and the fare, to which ample justice was done, comprised 35 rounds of beef, weighing about 50 lbs. each; 25 hams, about 22 lbs. each; 52 plum puddings; and 700 gallons of beer.

A railway direct from Chesterfield to Sheffield is projected by the Midland Railway Company, and should this project be carried out it will open up one of the most extensive fields for mineral industry which could possibly be conceived. There is a large trade done in coke for the Sheffield manufacturers, which has now to be carried. Were a railway established the manufacture of coke would be greatly increased.

Messrs. Brown, of the Rotherham Forge, have been fined 40s. and costs for permitting black smoke to issue from their furnaces longer than is prescribed in the local Act—longer than 20 minutes in every hour.

The Coal Trade is not so active as we have had to notice it at this period of the year. The depression in the manufacturing districts is the cause. At many of the collieries large stocks are on hand. At Staveley the colliers are working short time on account of the great quantity of coals on hand.

The great Barnet Court was held at Winstar, Derbyshire, on Wednesday, but there was no business to transact. The books of the barnmasters showed that the production of lead ore during the past half-year had been only small as compared with former returns.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

OCT. 17.—The Iron Trade maintains the improvement previously noticed, and a good number of the makers are fairly employed, and most are doing fully as much as they were. Houses dependent on the American large demand are necessarily very slack, but from various other quarters the reports are generally favourable. In the Hardware Trades no change for the better can be noted. The complaints of a deficiency of orders are very general, and a large proportion of the workmen in these trades are not working more than three or four days per week. During the present week an important conference of the employers of labour and others interested in the welfare of the working classes in South Staffordshire was held at Wolverhampton. It was convened mainly by gentlemen connected with the temperance movement, of which Mr. Henry Beckett, mineral surveyor, of that town, who acted as secretary, has long been an active promoter. Mr. S. Lloyd, jun., of Wednesbury, was treasurer, and the circular inviting attendance contained the names of many of the most influential proprietors of works and mines in the district. The conference was designed to consider the question of improving the condition and character of the working classes, and was not confined to the consideration of any special means by which it was sought to effect this object. Mr. Samuel Bowley, of Gloucester, and Mr. Handel Cossam, of Bristol, both well known for their self-sacrificing devotion to the improvement of the lower classes of society, in which they do not confine themselves to the advocacy of total abstinence, to which, however, they have for many years been zealous adherents. The addresses of these gentlemen were very excellent, thoroughly practical, and extremely interesting, and their plea for the principle of total abstinence from intoxicating drinks, to which they have so long adhered, was put in a most persuasive manner. Mr. Bowley especially urged the importance of keeping watch over youths at from 18 to 25 years of age, of improving the character of the residences of the working classes, and of instilling building societies as means admirably calculated at once to effect this object and to promote provident habits. He deprecated pecuniary charity, as did all the speakers, as the means of raising the working classes, but urged the masters might assist by guidance and advice, and might also lend money at interest on the security of building and land, and in other ways promote the efforts of working men to help themselves. He also, in very forcible terms, pointed out the beneficial influence which Christian ladies might exert. As one means of saving working men from vice, he advocated the provision of places of recreation apart from public-houses. He in case of reduction of wages, he would also allude to the great difficulty which had arisen from the increased proportion of Irish labourers employed in the district, a class with whom it was almost difficult to deal. Mr. Sampson Lloyd, of the firm of Messrs. Lloyds, Foster and Co., of Wednesbury, addressed the meeting, and said there was a very great improvement in the character and habits of working men within the last 30 years, especially mechanics, but which was also observable in colliers to a considerable extent. Mr. Lloyd strongly condemned the butty system, as interposing a class of men between the masters and workmen, and the practice of drink allowances, which prevailed to a fearful extent. Mr. T. Davies, of Hill Top, attributed much of the evils existing to the butty shop, as he never allowed a man in his employ to keep a public-house. On the whole, the conference was of a very satisfactory character, and it is to be hoped that great good may result from it. The two immediate practical points which present themselves are—first, preventing foremen, especially butties and doggies, from keeping public-houses; and, secondly, doing away with all allowances of ale, and substituting extra money payments. Much of the evil of drinking being forced on miners will be prevented by the new special rule, which requires that every collier's wages shall be paid at the pit cabin; but where butties keep public-houses the miners will, to a large extent, be forced to consume drink.

It appears that the French Minister of Commerce has ordered a metallurgical survey of the several iron manufacturing districts of Great Britain. The gentleman selected for the task is one intimately acquainted with this country, has apprenticeship, in fact, having been served in this district. Mr. J. A. Spiers, C.E., the gentleman appointed, was also for some time connected with Messrs. Leabody and Lemaire, in the Landaff Purified Coke Works. Mr. Spiers is thoroughly conversant with the English language, so that it may be anticipated that he will collect useful information, and that his notes will form a valuable volume of statistics.

EDWARDS'S ORE-WASHING MACHINERY.—In several previous Journals we have referred to the improved machinery for washing ores, invented by Mr. E. Edwards, of Beaufort-buildings, Strand; and as we understand that experiments on a practical scale are now being made for Mr. Darby, of the Brymbo Iron-works, and for Mr. Fowler, of the Sheepbridge Iron-works, and that the invention is attracting much attention, we shall take an early opportunity of publishing an illustrated description of the machinery. The success achieved hitherto appears to be complete, and no doubt is entertained but that the working of the machine upon the large scale will give equal satisfaction.

STRUCTURE OF METALS.—It is well known that silver, copper, and malleable iron, when newly broken, give a very considerable reflection of light from the fracture, and it has generally been understood that the structure was granular, or composed of crystals, and that the reflection of light was from the angles of these; on examining specimens of the above-named metals with a microscope, however, I discovered that the structure was perfectly porous or cellular, and that the reflection of light seen was from the inner surfaces of the cells, which, though minute, were most brilliantly reflected, especially when newly broken; and when the metal was bent a little in one direction before breaking, thereby presenting the sides of the cells to the proper angle, the reflection was more fully seen than when the cells remained in their natural position. There is a slight difference in the size and number of the cells in different specimens of the same metal, but the general resemblance is remarkably constant. In silver, the form of the cell is somewhat oblong, but the cell is larger than the cell of copper or iron, and the system is more perfectly developed—that is, the internal communication from cell to cell appears to be more regular. The form of the cell in copper is nearly spherical, but in some instances they seem to press into the domains of each other, and their forms are, therefore, to some extent modified thereby. Copper from different works differs in the diameter of the cells, as well as in the number of them, but the range seems to be from 500 to 1000 in the linear inch; and it should be remarked that a specimen of best select copper does not seem to have any portion of it absolutely solid and dense; on the contrary, the partitions between the cells are exceedingly thin, so thin that there appear to be minute circular openings from each one to the surrounding cells; so that, as in silver, there is an internal communication through the entire mass. The cells in iron are more irregular in size and form, their inner surfaces being jagged and uneven, and less brilliant than those of silver and copper; the best fibrous iron, however, seems to be equally free from angular crystals, and shows a high degree of porosity. A good microscope, with low powers, say, from 2-inch to 4-inch focus, is well suited to the observation. This cell system is developed internally in the metal; the outer surfaces, whether in contact with the mould or atmosphere, seem to be entirely destitute of these cells; the action of the tool also obliterates them, so that it is in the fracture alone that they can be seen. In conclusion, I may say it is my opinion that the malleability, as well as the superiority, of silver, copper, and iron over other metals for conducting heat and electricity may

be owing to the perfection of their cellular arrangement.—W. VIVIAN: *Parys Mines, Bangor.*

FOREIGN MINING, AND THE NEW TARIFFS—No. X.

The general situation of metallurgical industry at Charleroi is still reported to be satisfactory, the rolling-works being well employed, while there is an absence of stock. The most important piece of intelligence at hand is the rise of iron in the Paris market; and it is stated that if this ascensional movement continues the Belgian industrial establishments will be able this season to send their products to France, notwithstanding a duty of nearly 3s. per cwt. imposed on marketable irons. Considerable quantities of coals which had accumulated at Charleroi had all been sold. The St. Dizier market has undergone little change. It is considered that the present price of pig is quite exceptional, and cannot be maintained; each year a certain number of blast-furnaces are stopped, and this year, in consequence of the exceptional drought of the summer, a greater number than usual have been put out; the result is a check in the production, a comparative scarcity, and a consequent rise in prices. But the price of pig is no longer regarded at St. Dizier as the basis of the price of iron; coke-fabricated French irons and foreign irons regulate prices, and the price which the proprietors of rolling-works can pay ought to regulate the price of pig. Yet for some time the price of pig has not borne a due ratio to the price of iron. The competition of English pig continues to attract a good deal of attention, and has excited various opinions, gloomy views, probably, predominating on the whole. In the first eight months of the present year 71,551 tons of foreign pig have entered France, being an increase of no less than 143 per cent. as compared with 1860. The St. Dizier ironmasters are looking to a reduction in the prices of coals, in order to adapt themselves to their new situation.

Complaints are made that French importers of English coals have not always reason to be satisfied with the commercial loyalty of their overseas friends, and complaints have been addressed to the Minister of Agriculture, Commerce, and Public Works, informing him that the weight of cargoes put on board at Cardiff is often inferior to the quantities represented to captains as having been delivered. English coalowners and merchants have protested in reply that they have delivered full weight, and they have explained the differences between the quantities received on board and those disembarked on the arrival of ships, by referring to the practice which prevails in continental ports of weighing out cargoes by small portions at a time, giving always full weight—that is, rather more than actual weight—to purchasers, the little excess amounting to a noticeable quantity in the aggregate. The French seem, however, loth to admit to the full extent the justice of this, after all, reasonable explanation, and appear to consider that in the lump cargo full weight ought also to be given on the English side. In the case of a ship of 500 tons burden it is possible that the cargo may be sold out in parcels of 500 kilos, or about 1 ton each; and assuming that a kilogramme (2 lbs. 3.1-5th oz.) is thrown in to break the equilibrium of the balance, this liberality in 1000 transactions would involve a loss of a ton, supposing that the weight of the cargo had been rigorously enforced on the English side. This the French contend is no great matter, and as coals cost very little at the pit's mouth in England, they say that a little generosity in the weight would not hurt English coalowners and merchants. If the deficiency of a cargo is never more than 1 ton after it has been weighed out in small parcels, it seems to us that the French importers have a very feeble case, on their own showing; but if the deficit exceeds 1 ton, the matter ought to receive attention on this side of the Channel. No doubt our French friends, in dividing a cargo of 500 tons into 500 or 1000 lots, know how to charge an extra trifle for the "full measure" upon which their keen-sighted and sharp-witted compatriots insist.

Much attention continues to be devoted in France to the question of internal communications. Thus, the Council General of the Loire demands a reduction in the carriage of coals and minerals on the railway from St. Etienne to Lyons, from 0.62d. to 0.37d. per ton per mile; and a reduction to 0.18d. per ton per mile (the tariff fixed in the North of France) for minerals carried for long distances on that magnificent monopoly the Paris, Lyons, and Mediterranean Railway, which, as it seems to us, could well afford to make an abatement, seeing that its traffic has all this year been increasing at the rate of 10,000l. to 15,000l. per week. The Council General also demands the prompt execution of a direct branch from St. Etienne to St. Rambert, uniting St. Etienne and the coal basin of the Loire with the Lyons and Mediterranean system, a vast and ever-extending congeries of lines now comprising nearly 1250 miles of railway. It is believed that the execution of the St. Louis Canal, to which reference was made under this head in a recent impression of the *Mining Journal*, will not be long delayed, now that it has received the approval of a mixed military, naval, and scientific commission; and it is believed further that the extension of the South of France system of railways from Certe towards Marseilles would secure to the district of the Lower Rhone a new era of prosperity. An Imperial decree authorises the expenditure of 21,200l. in the improvement—especially the increasing the depth of water—of the Blavet Canal. Other decrees authorise the improvement of the Lys, at a cost of 14,000l.; the construction of a branch railway from the canal from Roanne to Digoin, to the Bourbonnais division of the Paris, Lyons, and Mediterranean Railway, at a cost of 16,000l.; the improvement of the navigation of the Boutonne, between the Bernomet sluice and the point at which the river falls into the Charente, at a cost of 12,400l.; the improvement of the Calais Canal, in the St. Pierre-lez-Calais passage, from the bridge of Cologne, at a cost of 12,000l.; the improvement of the Upper Scarpe, between the canal of the Haute-Deule and the canal of La Sensée, at a cost of 4280l., &c. These decrees afford evidence of the desire of the Government of the Emperor Napoleon to meet the somewhat querulous requirements of French coalowners; and a careful report presented by the Minister of Public Works, which recommends a great variety of improvements, will, no doubt, receive attention in due course. This has, indeed, been the case to some extent at present, and it is announced that the Loire between Briare and Nantes, as also in the maritime section of its course, will receive ameliorations, which are already in progress down the river from Nantes. The necessity for these improvements was felt in June and July, when, while coals were wanted from many points on the shores of the Loire, 90 lighters from the mines of Blanzay remained stationary for want of water between Châtillon and Orleans, while the proprietors of the mines, to meet the pressing wants of their customers, had to purchase English coals at Nantes! Of course this was, from a French point of view, a peculiarly annoying state of things; and as the railway companies, at present secure in their monopolies, do not appear disposed to make concessions as to reduced tariffs, the French coalowners see clearly that the only course open to them is to endeavour to play off canals against railways. And they are raising a great outcry on the subject; but, as usual, the Government is expected to do everything.

The importance of the question of transport is self-evident, but, perhaps, it may be interesting to adduce a few statistical illustrations of its gravity, and these we find in a speech by M. Dalloz, a member of the legislative body. Thus M. Léon Talabot states that a forge which he represents expended 48,000l. for transport in 1858 and 1859, on a production of 29,000 tons of iron, and that in the department of the Nord, especially in the valley of the Sambre, transport expenses amount to 30 per cent. in the return price of a ton of iron. The total consumption of indigenous and foreign combustible in France was estimated in 1857 at 13,149,470 tons, of which 7,648,000 tons were French coal, and the cost of transport was estimated at 9s. 7d. per ton, or altogether, in round numbers, 6,400,000l. According to M. Evverte, another forgemaster, the forges of the Loire, which draw their minerals from the Ardeche district, have to support on a production of 91,000 tons of iron transport expenses to the amount of 192,000l. M. de Wendel, proprietor of the blast-furnaces and forges of Hayange, estimates that he expends 72,000l. per annum in transport, in consequence of a new tariff of 0.37d. per ton per mile, and 3½d. to 4d. per ton exacted by the Eastern of France Railway Company for terminal charges. M. Hochet, administrator of the Fourchambault Ironworks, states that that establishment, although placed in an average position for its raw material, had yet to pay in 1859 more than 75,000l. for its transport. M. Pinart, a forgemaster of the Pas-de-Calais, pays 12,000l. annually for the transport of coal alone, and he declares that when the railway from Béthune is opened he calculates on a reduction of at least 40l. per day in his expenses. Finally, M. de Dietrich, proprietor of blast-furnaces at Niederbronn, declares that a line of railway from Haguenau, by Niederbronn and Deux-Ponts, about 34 miles in length, would effect, as regards his establishments alone, a saving of 8800l. to 9200l. per annum, or 25s. to 30s. per ton, upon a production of 7000 to 8000 tons of iron. Thus, as M. Dalloz justly argued, the greatest service which can be rendered to French industry is to push forward railways and canals, and to put mineral districts in the most

direct possible communication with coal mines, so as to diminish transport expenses. The necessity of doing this becomes every day more urgent, seeing that in 1860 the importation of Belgian coals into France increased 313,577 tons, or 9 per cent. in 1859, and 408,829 tons, or 12 per cent. in 1858. The import of Prussian coals was also larger in 1860 by 124,683 tons than in 1859, while the Treaty of Commerce with England, now assuming its full development, is largely increasing the receipts of English coals, which in 1860 fell off slightly, in consequence of the excessive rates charged for freight. M. Dalloz contends that France could draw from her own soil the 14,000,000 tons which her consumption now annually absorbs, although he admits that certain extreme points of French territory must continue to be supplied, in consequence of their peculiar position, by France and England. In support of his argument, M. Dalloz refers to the fact that while the production of French coal was in 1852 only 4,900,000 tons, it rose in 1857 to 7,900,000 tons, being an increase of 60 per cent. in five years. But M. Dalloz—who, while sincerely admiring England from an industrial point of view, hopes to steal a march upon her by the continuance of peace, steady labour, and watchful observation—forgets that even if his countrymen should be able to increase their coal production to 14,000,000 tons per annum, by the time they had arrived at such a point the consumption would have further increased, so as to still leave openings for English, Prussian, and Belgian coals; and, after all, it will be to the real interest of France if it should be so.

A branch railway from Montluçon to Limoges, which has just been declared a work of public utility—an expression tantamount to “preamble proved” in an English parliamentary committee room—will, it is expected, open an important future to the collieries of the Ahun basin, as it will permit them to run off their products with facility. The basin, which is situated near the little town of Ahun, in the department of the Creuse, has, in known beds of coal, the nature and power of which varies in each. Thus the majority furnish a coal suitable for the production of coke and forging purposes, while others comprise a coal suitable for making gas, and useful, also, in the manufacture of porcelain, and one bed in the midst of the others gives only a meagre anthracite coal, burning slowly and with difficulty, and giving out neither flame nor smoke. Several of the beds are rendered sulphurous by the presence of pyrites of iron, which are prejudicial to the employment of the coals in forges or blast-furnaces. The thickness of the coal beds varies from 10 in. to 3 ft. 4 in., but this thickness is not entirely made up of coals. It may be added that the basin was formerly divided into two concessions, under the name of the North and the South, and of these one pit, about 200 ft. deep, is only working in the southern concession, although the other division has three pits in operation. Some other pits have been pierced beyond the limits of the territory comprised in the concession, but they are not in activity. The mines possess a certain importance already, notwithstanding disadvantageous circumstances, and some of their coal is being increasingly consumed at Limoges for dressing porcelain; only the best produce of the mines, however, is saleable, the ordinary coal having been almost valueless hitherto, in consequence of the high rates charged for transport. The production, which was 4800 tons in 1856, rose to 7400 tons in 1857, and to 11,800 tons in 1858, of which 4000 tons in 1856, 6700 tons in 1857, and 9400 tons in 1858, were dispatched to other quarters for commercial purposes, or consumed on the spot, the difference between the totals given representing the ordinary coal without value which remained on the ground. But, as stated above, great things are hoped for now that railway communication is to be brought to the mines, and it is believed that a far larger quantity of coal can be extracted and brought to market without the working and other expenses being proportionately increased.

Advances from Bavaria note a modification in sounding arrangements, introduced by M. Georges Kolb. The change consists principally in the employment of a stout cable of iron-wire, instead of the bars of iron commonly used, or trunks of trees, as in another system. The experiment has been made several times, but has met with numerous difficulties; M. Kolb has now succeeded, however, in communicating a twist to the auger, which secures to it a steady and regular upward progress. The apparatus is stated to work with much celerity; the auger, for example, can be lowered and drawn up at the rate of 500 ft. in a minute, and it can be made to advance 12 to 14 in. an hour in the most difficult beds of earth.

We have received some statistics of high interest, illustrating the state of mining and metallurgical industry in Prussia. We have no space this week to enter into full details, but we may just state that in 1860 the coals and lignite produced by Prussia exceeded the total production of any former year, the value being estimated at 3,640,528 $\frac{1}{2}$. The products of the Prussian blast-furnaces were valued last year at 1,801,252 $\frac{1}{2}$, and the other metals and minerals produced were worth 1,948,603 $\frac{1}{2}$. Further details on the subject, together with particulars on the mineral wealth of Spain, to which allusion was made in last week's Journal, will be given next week.

The imports of coal, iron, copper, &c., into France in the first eight months of the present year have been as follows, as compared with the corresponding period of 1860:—

	1861.	1860.
English pig.....Tons	56,828	7,891
Belgian pig.....Tons	5,849	5,076
Pig from other sources.....Tons	8,874	1,792
Total.....Tons	71,551	14,758
Iron in bars.....Tons	3,788	242
Steel.....Tons	538	224
Wrought iron.....Tons	647	—
Engines and machinery.....Tons	559,309	200,552
English copper.....Tons	3,678	3,507
Chilian copper.....Tons	2,435	1,054
Copper from other sources.....Tons	5,735	2,887
Total.....Tons	11,846	7,448
Rough tin.....Tons	2,208	1,899
Rough lead.....Tons	10,944	9,729
Zinc from the Low Countries.....Tons	6,729	56
“Belgium.....Tons	11,063	3,861
“Hanseatc Towns.....Tons	3,842	3,369
“other sources.....Tons	3,889	11,714
Total.....Tons	25,823	18,499
Coals from Belgium.....Tons	1,802,630	1,810,574
“England.....Tons	894,380	749,507
“Germany.....Tons	495,077	485,789
“other sources.....Tons	42,979	1,362
Total.....Tons	3,234,885	3,041,232
Coke from Germany.....Tons	168,491	—
“Belgium.....Tons	200,907	208,020
“other sources.....Tons	8,548	146,807
Total.....Tons	367,656	354,827

It is satisfactory to find from these figures that every description of English minerals and manufactured iron has thus been in increased demand in France. The exports to August, 1861, from France were 416,267 tons of engines and machinery, against 459,954 tons in the eight months of 1860; and 39 tons of tin, against 24 tons in 1860. The stocks in warehouse at the commencement of September were as follows:—Pig, 13,012 tons; copper, 43 tons; tin, 33 tons; lead, 12,159 tons.

THE IRON FIELDS OF KENT AND SUSSEX.

Although many years have elapsed since these southern counties occupied the enviable position of producing the best description of manufactured iron, it is more than probable that, within a comparatively short period, these districts will once more be brought into a condition to yield large quantities of the best descriptions of iron ore, and thus be able to compete, both as regards quantity and quality, with the producing capabilities of our northern counties. Referring to this subject upon a previous occasion, mention has been made of the fact that in bygone times the manufacture of iron was carried on to a very considerable extent in various parts of these counties, that they still possess good iron ore in almost illimitable quantities, and that the iron formerly manufactured from it was considered superior to any in the kingdom.

The enquiry is very often and properly made, if these counties do contain such enormous quantities of iron ore, which has proved itself capable of being manufactured into the best quality of iron, how is it, seeing the position of the fields, which, being but a comparatively short remove from London, would be greatly in favour of their remunerative development, that for so many years nothing has been done to develop their known resources upon an extended scale? To which it may be replied that the exhaustion of the vegetable fuel of the county, the difficulty and expense of obtaining fuel, and, above all, the discovery elsewhere of valuable fields of iron ore immediately adjacent to seams of coal, have brought about that state of things which would otherwise appear anomalous.

Regardless of the effect which the intervention of recent circumstances

must of necessity have, when sufficient time has elapsed to allow their importance and extent upon this branch of our industry to be verified by actual results, the extraordinary demand for iron has long reached such an extent that many of those fields that are allied, as it were, to the adjuncts necessary to their development are nearly exhausted, consequently there is evinced on the part of ironmasters an anxious desire to encourage the opening up of fresh sources of supply, the more especially as the demand is likely soon to materially increase.

This fact has induced the proposition to resume upon an extensive scale the development of the iron fields of Kent and Sussex, not that it is intended at present to manufacture iron to any extent in those countries, but rather to convey the ore, which, it is stated, can be raised at an almost nominal cost, to the North, where there appears to be a demand at paying rates quite equal to any supply. Owing to the peculiarly favoured position of the works, near Faversham, the ore raised can be conveyed thence to the Tyne and the West Riding of Yorkshire free from any cost, as hundreds of coal ships annually come from those parts, and, after having discharged their cargoes, are glad to avail of any opportunity to obtain ballast for their return voyages. But it is proposed by those who are the more anxious to carry out this enterprise to convey coal from the North to Faversham, in the success of which the railway authorities in and about Kent and Sussex are deeply interesting themselves. Without taking into consideration the great and increasing demand at present existing in those localities for coal, it is quite probable that the railway company would be among the best customers.

As regards the quality of the ore, it may be mentioned that Dr. A. S. Taylor, F.R.S., who has analysed some specimens, states that they contain about 51 per cent. of metallic iron; and the reports of Mr. Jehu Hitchens and other practical authorities agree in stating that the quantity is abundant, and quite equal to the most extended scale of operations for years to come.

SALES OF LEAD ORES.

LEAD ORE SOLD FOR THE QUARTER ENDING SEPTEMBER, 1861.

Mines.	Tons.	Amount.
Minera.....Tons	1187	£13,501 6 0
Isle of Man Mining Company.....Tons	530	9,388 15 0
Liburne.....Tons	744	9,199 8 0
Wheat Mary Ann.....Tons	297	5,497 14 6
Cornwall.....Tons	473	5,411 9 3
Wheat Mary Ann.....Tons	265	5,430 7 6
East Darren.....Tons	316	4,379 16 0
Glogfach.....Tons	240	3,490 17 6
Cargoll.....Tons	274	3,306 0 0
Frongoch.....Tons	270	3,064 0 0
Laxey.....Tons	200	3,035 0 0
Rhosmor.....Tons	250	3,018 5 0
East Loggan.....Tons	248	2,809 19 6
Westminster.....Tons	240	2,757 13 0
Cwm Erfin.....Tons	165	2,303 1 0
Coetia Llys.....Tons	178	2,183 1 0
Maesrwyddu.....Tons	166	2,057 5 9
Tamar Consols (July).....Tons	108	1,996 14 10
Mount Pleasant.....Tons	150	1,769 7 6
Goginan.....Tons	113	1,667 9 0
Dyllife.....Tons	148	1,731 0 0
Dyffrynwm.....Tons	120	1,434 13 0
Wheat Mary Ann (Aug.).....Tons	80	1,380 0 0
Wheat Mary Ann.....Tons	107	1,371 13 6
North Minera.....Tons	107	1,365 5 0
Cefn Brynwg.....Tons	103	1,151 8 2
Parys.....Tons	96	1,127 4 0
Exmouth (July).....Tons	100	975 0 0
Llanerchyr Aur.....Tons	70	908 17 6
Bryn Gwlog.....Tons	77	883 15 0
Newtownards (Aug.).....Tons	75	836 5 0
Kewick.....Tons	74	818 17 6
Nant-y-lago.....Tons	60	698 4 10
South Darren.....Tons	40	657 12 7
Aberdovey (Aug. and Sept.).....Tons	55	643 7 6
Pool Park.....Tons	45	516 17 6
Orsedd.....Tons	42	513 6 0
Llanfair (Sept.).....Tons	22	514 16 0
Deep Level.....Tons	45	491 7 6
Roman Gravel.....Tons	40	471 0 0
Wheat Mary Ann (July).....Tons	60	435 0 0
Herward United.....Tons	38	429 15 0
Rhoswydol and Bachelidon.....Tons	35	387 15 8
Hendro Ucha.....Tons	31	370 4 0
Nanteos United.....Tons	37	363 1 9
Round Hill.....Tons	25	290 12 6
Cardigan Consols.....Tons	23 $\frac{1}{2}$	284 3 9
Carmarthen United.....Tons	24	276 12 0
Holywell Level.....Tons	20	264 7 0
Grosvener.....Tons	20	252 10 0
Park.....Tons	23	246 0 0
Brynmor Hall.....Tons	20	244 14 0
Pant-y-Buarth.....Tons	20	215 0 0
Ballyvirgin (Sept.).....Tons	24	197 17 6
Allt-y-Crib.....Tons	16	193 9 10
Speedwell.....Tons	17	191 17 6
West Merilyn.....Tons	10	125 5 0
Central Minera.....Tons	10	120 5 0
North Laxey.....Tons	10	115 0 0
North Exmouth.....Tons	9	105 15 8
Lady Eleanor.....Tons	7	96 15 0
Harwood.....Tons	5	55 7 6
Nether Heath.....Tons	5	52 2 6
Trelogan.....Tons	3 $\frac{1}{2}$	41 2 6
Nant-y-lago.....Tons	4	40 16 0
Tymen.....Tons	3	37 16 0
Merilyn.....Tons	3	34 2 6
Talacre (Aug.).....Tons	1 $\frac{1}{2}$	18 0 0

BLEND.

Miners.....Tons 250 £ 838 15 0
* On an average, this is—on lead ore 34s., and blend 13s. 7d., per ton lower in price than the same period last year.

SALES OF BLACK TIN.

BLACK TIN SOLD FOR THE QUARTER ENDING SEPTEMBER, 1861.

Mines.	Tons.	Amount.
Dolcoath.....Tons	210	£14,331 10 3
Charlestown United.....Tons	87 $\frac{1}{2}$	5,707 15 3
Wendron Consols.....Tons	69	4,567 13 9
Par Consols (Aug.).....Tons	69	4,489 10 4
Drake Walls.....Tons	62	4,266 8 9
Folberron.....Tons	60 $\frac{1}{2}$	4,223 12 2
Great Wheal Vor.....Tons	57 $\frac{1}{2}$	3,961 3 10
Fed-an-drea United.....Tons	55 $\frac{1}{2}$	3,628 17 5
West Fowey Consols (Aug.).....Tons	49 $\frac{1}{2}$	3,226 13 3
Great Wheal Fortune.....Tons	43 $\frac{1}{2}$	3,119 0 4
Great Wheal Busy.....Tons	45 $\frac{1}{2}$	2,744 13 0
St. Day United (Aug.).....Tons	29 $\frac{1}{2}$	1,728 2 9
Wheat Mary Ann (July and Sept.).....Tons	13 $\frac{1}{2}$	1,382 17 11
Carnyorth.....Tons	22 $\frac{1}{2}$	1,382 4 0
Gardina (Sept.).....Tons	19 $\frac{1}{2}$	1,340 0 6
Basset and Grylls (Sept.).....Tons	18 $\frac{1}{2}$	1,268 6 4
Wheat Mary Ann (Aug. and Sept.).....Tons	18 $\frac{1}{2}$	1,253 0 3
North Roskear (Aug. and Sept.).....Tons	19 $\frac{1}{2}$	1,247 13 3
South Carn Brea.....Tons	18 $\frac{1}{2}$	1,226 6 11
Penhalls.....Tons	16 $\frac{1}{2}$	1,128 7 9
Pelbreen.....Tons	14 $\frac{1}{2}$	1,035 6 3
Gurlyn.....Tons	13 $\frac{1}{2}$	890 9 0
St. Austell Consols (July).....Tons	9 $\frac{1}{2}$	648 7 6
Brea Consols.....Tons	9	618 10 0
Redmor.....Tons	10	683 3 8
Great Work (Sept.).....Tons	7 $\frac{1}{2}$	468 11 10
Spearhead Consols.....Tons	6 $\frac{1}{2}$	496 3 6
Treworla.....Tons	6 $\frac{1}{2}$	337 8 0
Kit Hill United (Sept.).....Tons	4	268 0 0
United Mines.....Tons	23 $\frac{1}{2}$	185 6 5
New Wheal Vor (July).....Tons	3	184 16 6
Bottle Hill (Sept.).....Tons	2 $\frac{1}{2}$	183 2 6
Pridden Wood.....Tons	2 $\frac{1}{2}$	136 9 11
East Wheal Lovell.....Tons	2 $\frac{1}{2}$	106 17 6
Wheat Mary Ann (Aug.).....Tons	1 $\frac{1}{2}$	108 18 2
Penhale Moor.....Tons	1 $\frac{1}{2}$	99 17 9
Rosewarne Consols.....Tons	1 $\frac{1}{2}$	84 8 0
East Trevenen, &c.....Tons	1 $\frac{1}{2}$	42 17 6
West Margaret.....Tons	1	59 17 0
Fowey Consols.....Tons	1 $\frac{1}{2}$	29 1 6
West Par.....Tons	1 $\frac{1}{2}$	48 6 4

* During Aug. and Sept. 36 tons were stocked, waiting for a better price.

NORTH POOL.—In another column we publish the prospectus of a company with a capital of 24,000 $\frac{1}{2}$, in 4 $\frac{1}{2}$ shares, for working the well-known North Pool set, which is situated in one of the richest districts in Cornwall. North Pool Mine is about half a mile north of Carn Brea, around which six square miles have produced at least 6,000,000 $\frac{1}{2}$ profits upon an outlay of 600,000 $\frac{1}{2}$, or, in other words, the capital has been returned ten times over. North Pool has been once worked, but only to a limited extent, yet 61,460 $\frac{1}{2}$ profits were made in eight years at a cost of only 81,600 $\frac{1}{2}$. The mine has been favourably reported upon by Capt. W. Bawden, of Camborne; J. Daw, of Carn Brea; J. Vivian, of North Roskear; W. Pascoe, of South Fowey; W. H. Reynolds, of Great Retallack; Wheat Mary Ann, &c.; G. Richard, of Great Onslow Consols; and M. Edwards, late of Wheat Mary Ann. Capt. Daw and Vivian are particularly careful men, yet the former describes the mine to be more than an ordinary special-

tion; and the latter states that he believes it to a first-rate piece of mining ground. It is anticipated that with such opinions from men occupying so high a position success must result.

THE SLATE TRADE.—The slate trade still continues very brisk at Portmadoc, the only drawback being that the supply of slates does not come up to the demand, the stocks on hand being almost unprecedentedly low. Two extra quays have been taken at the harbour; one by Mr. Wyatt, for his quarry at Moelwyn, and the other, as we are informed, by a gentleman from Manchester. —*North Wales Chronicle.*

STREET RAILWAYS.—Mr. Train has a prospect of success for his street railway in the Pottery district. The trustees of roads in that busy neighbourhood have approved of the plan, and a joint-stock company has been formed for the purpose of raising the money necessary to carry on the work. Mr. Train promised to raise 10,000 $\frac{1}{2}$, half the capital required.

Among the miscellaneous joint-stock companies recently introduced to public notice, the LONDON AND PROVINCIAL AGRICULTURAL COMPANY has this week excited a considerable share of attention, and there has been a very active demand for shares by the investing portion of the public, who prefer the steady results of a manufacturing business to those of a more speculative character, such as mines and land. The fact that the company starts with a ready-made connection, and two mills specially prepared to at once yield a large supply of the articles which form the staple of the company's productions, takes the project out of the category of speculation, and gives it a claim to the title of a matured business investment. There is, we understand, a very warm response to the project throughout the agricultural districts, which are fully alive to the importance of a constant and plentiful supply of articles of a reliable quality, which the company proposes to manufacture—oil-cake, compound feeding meal, and other economic foods for cattle, and patented and other manures, all of which have already an established reputation with agriculturists.

“THE NEWS” is the leading title of a contemporary weekly organ of insurance companies, and other associations conducted on the joint-stock principle; which, from the able manner in which it has been conducted, and the fact that it has been recently enlarged to the fullest dimensions permitted by the law relating to the newspaper press, is deserving a friendly recognition by us. The News was established about three and a half years since, and has by a special devotion to the interests of insurance business in general, and a talented selection of miscellaneous news, bearing upon such cognate companies as banking, railway, and joint-stock trading associations, gained a large share of public patronage.

TIN MINE IN CORNWALL.—FOUR GENTLEMEN, having spent a few hundreds of pounds in EXPLORING A PIECE OF MINERAL GROUND IN ONE OF THE BEST TIN DISTRICTS IN CORNWALL, and having DISCOVERED therein TWO VERY FINE TIN LODES, producing RICH TIN ORES, are DESIROUS of being JOINED by OTHERS who will expend a similar sum, with themselves, to bring the mine into a profitable state. Or they will SELL the SETT, taking shares with any respectable company that may be formed for working the same. —Communications, treating for the same, or requesting permission to inspect, may be addressed to Capt. JAMES THOMAS, East End, Redruth.

VALUABLE TIN MINE.—A FEW GENTLEMEN have SPENT A LARGE SUM OF MONEY IN OPENING AN EXCELLENT TIN MINE IN CORNWALL, and there is no doubt that it will soon give large profits. AN INTEREST THEREIN, and also in TWO OTHER FIRST-RATE MINES in full working, certain soon to pay well, MAY BE OBTAINED by bona fide investors in bona fide mines on application to JAMES HOLLOW, Mining Offices, Lelant, Hayle, Cornwall, and 1, Crown-court, Old Broad-street, London, E.C.—September 13, 1861.

ON SALE, THE LOWER MACHNO SLATE AND SLAB QUARRY, and SAW MILL, or part of the same. Reports, &c., will be forwarded on receipt of two postage stamps, by Mr. JOHN HUGHES, Fronhaug, Llanberis, North Wales.

THE MEETING OF THE WATERS.—THE SALE BY AUCTION of this property having been ADJOURNED, communications with a view to a purchase by private contract may be addressed to Messrs. HODGES, SMITH, and Co., Ordnance and Estate Agency, 104, Grafton-street, Dublin.

HORIZONTAL STEAM ENGINES FOR SALE, one each of 14, 17, and 20 in. cylinders, 36 in. stroke, quite new. They are especially adapted for mining purposes, and are very substantially made. Also, several of from 6 to 8 horse power, apply to Messrs. E. PAGE and Co., Engineers, Laurence, Fountain-place, Laurence Pountney-hill, Cannon-street, E.C.

STEAM ENGINE FOR SALE.—A 36 in. cylinder STEAM ENGINE FOR SALE, equal to new, with 10 ton BOILER, to be seen at Wheat Trevelyan Mine, Gidsalthe, near Marazion. —For further particulars, apply to Mr. E. KING, 27, Austinfriars, London.

CHARD, ILMINSTER, AND TAUNTON RAILWAY. (Connecting the South-Western and Bristol and Exeter Railways). Capital £120,000, in shares of £10 each. Deposit, £1 5s. per share. Interest at the rate of 3 per cent. per annum will be paid on calls during construction. The works are expected to be completed in about eighteen months from the time of commencement.

PROMOTERS.
The Right Hon. EARL FOULETT.
The Right Hon. LORD PORTMAN.
The Right Hon. LORD BRIDPORT.

WILLIAM SPEKE, Esq., Jordans House, Ilminster, J.P.
JOHN LEE LEE, Esq., Dillington House, Ilminster, J.P.
WILLIAM HENRY POWELL GORE LANGTON, Esq., Hatch Park, near Taunton, J.P.
HENRY BALCOCK, Esq., Banker, Taunton, J.P.
JOHN ROY ALLEN, Esq., Taunton, J.P.
CHARLES WARRE LOVEIDGE, Esq., Chard, J.P.
G. F. W. MILES, Esq., Forde Abbey, near Chard, J.P.
R. A. KINGLEAKE, Esq., of Taunton and Weston-Super-Mare, J.P.
HENRY CORNISH HENLEY, Esq., of Leigh House, near Chard, J.P.
JOHN CHURCHILL LANGDON, Esq., of Parrocks Lodge, near Chard, J.P.
WILLIAM TUCKER TOMS, Esq., Mayor of Chard.
RICHARD SHARLAND, Esq., Winterhay, Ilminster.
COO. BALCOCK, Esq., Banker, Taunton.
LAWRENCE WALKER, Esq., Bryanstone-square, London.
HENRY HARDSTAFF, Esq., Hatch Court, near Taunton.
SAMUEL HUTCHINGS, Esq., Sea, Ilminster.
JAMES W. SHEPHERD, Esq., Dowlish Mills, Ilminster.
Mr. JAMES BARNICOTT, Fore-street, Taunton.
Mr. GEORGE ENGLAND, Merchant, Chard.

DIRECTORS.
JOHN LEE LEE, Esq., Dillington House, Ilminster, Chairman.
WILLIAM HENRY POWELL GORE LANGTON, Esq., Hatch Park.
LAWRENCE WALKER, Esq., Bryanstone-square, London.
JAMES STAYNER, Esq., Ilminster.
WILLIAM TUCKER TOMS, Esq., Mayor of Chard.
BANKERS.—Messrs. Masterman, Peters, and Co., London; Messrs. Stuckey's Banking Company, Somersetshire Bank.
BROKERS.—Messrs. Henry Tudor and Son, 29, Threadneedle-street, London; Messrs. Barnett and Ellis, 18, Finch-lane, London.
SECRETARY—C. W. DOMMETT, Esq., Taunton.

An Act of Parliament was obtained in the last session for making a railway from Chard to Taunton, connecting the two main lines of the Bristol and Exeter and South-Western Railway Companies, and affording access to the Bristol and English Channels. In the year 1834 Mr. Telford made a survey for a great ship canal, to connect the Bristol Channel at Bridgewater Bay with the English Channel at Seaton, which it was estimated would draw no less than 1,095,527 tons of shipping, giving a return of £210,846 per annum.

The course of Mr. Telford's ship canal was through the same district which this line of railway takes, and the present enormous development of the South Wales Coal Trade, together with the increased demand for coal in the district, must necessarily render the existing traffic between the two coasts very much greater than at the date of Mr. Telford's estimate.

The construction of the line from Chard to Taunton will leave only about three miles of railway to be completed to effect the junction of the channels. The Act for that purpose was applied for in the last Session, but was not obtained in consequence of some informality connected with Standing Orders, but there is no doubt that it will be carried out in the next Session of Parliament. When obtained the distance from channel to channel will be about 45 miles, thus saving, in carrying steam and other coals to the north and south-east coast, a distance of about 250 miles, besides avoiding a dangerous and uncertain navigation.

The Bristol and Exeter Company have entered into an agreement with the directors of the Chard and Taunton Railway Company to work this line when made at 45 per cent. of the gross earnings, and to guarantee a minimum of £4750, equal to nearly 4 per cent. on the capital, for the purpose of dividend. All that is earned above that sum being divisible, upon the principle before mentioned, amongst the shareholders of the Chard and Taunton.

The line passes through a rich agricultural district, and affords accommodation to above 150,000 inhabitants. The town of Chard has several manufactures of lace and cloth, and some iron foundries, and the traffic of the town of Ilminster will be very considerable, arising from the manufactures in that district. The line is situated through which the line passes at Hatch Beauchamp and elsewhere, will form a considerable item in the traffic. According to the calculation of parties well acquainted with the district, the earnings will exceed £25 per mile; but assuming that £20 only is earned, then the undertaking on the proposed capital will pay over 6 per cent. per annum.

The line is supported by the local landowners, nearly all of whom will take agricultural value for their land.

It is confidently expected that by reason of the line from Watchet to Taunton, with which this line will be connected, a very large traffic will arise, and that the port at Seaton and Axmouth will be auxiliary to the other advantages of the line. It is estimated that the price of coal will be reduced at Chard and Ilminster at least 3s. per ton.

WEST SILVER BANK MINING COMPANY

(LIMITED).
Incorporated in virtue of the 19th and 20th Vics., c. 47, and 20th and 21st Vics., c. 14.
Capital £18,000, in 6000 shares of £3 each. Deposit, £1 per share.
And the balance, if required, to be paid by instalments of not exceeding 5s. per share,
of which thirty-one days' notice must be given for payment.

DIRECTORS.
WILLIAM HENRY STURGIS, Esq., 7, Bell-yard, Doctor's Commons.
JOHN HADKINS, Esq., 48, Mark-lane.
JOSEPH EDWARD MEUGENS, Esq., Commercial Sale Rooms, Fenchurch-street.
HENRY SPANGLER, Esq., 32 and 33, Minning-lane.
WILLIAM HENRY JONES, Esq., 21, Mark-lane.
BANKERS—Bank of London.
SOLICITOR—F. W. SNELL, Esq., Great George-street, Mansion House.
CONSULTING ENGINEER—Capt. Matthew Francis.
SECRETARY—Mr. Thomas Spargo.

OFFICES.—224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

PROSPECTUS.

The West Silver Bank Mining Company has been formed for the purchase and effective working of one of the richest metallic properties in the county of Cardigan.

It is situated to the north of the Great Frongoch Mine, and to the west of Silver Bank Mine, the lodes of which are filled with rich lead, and close to the boundary pass into and through the West Silver Bank grant, which is in the heart of the dividend-paying mines of that productive county.

The property, which comprises an area of one mile square, is held under a licence granted by Col. Powell, with a guarantee for a lease for 21 years, at 1-15th royalty or dues.

There are several rich lodes traversing its entire length, worth from £30 to £40 per fathom, within a few feet of the surface, and the estimated value of that already opened upon at one point alone is upwards of £50,000.

The county of Cardigan has for several centuries been distinguished as one of the richest lead-producing districts in the kingdom. Immense fortunes have been made by the adventurers in the mines of the county, and fortunes are being realised in the present day to a great extent upon insignificant outlays. Men possessing colossal fortunes, which they have in their own time dug out of the Cardiganshire mines, still exist; others with noble fortunes have passed away. And it is well known that when an old Cardiganshire mine has been re-opened with capital, spirit, and good prospects, the adventurers have been rewarded with fortunes for their investments.

There are few mines in the world more favourably situated than the West Silver Bank, with respect to its geological and mineralogical conditions. It is placed in the heart of all the dividend-paying mines of Cardiganshire.

The convenience of carriage is unrivalled, the Aberystwith and Devil's Bridge turnpike road passing over the top of the lode. The carriage distance is between eight and nine miles to port, and when the Manchester and Milford Haven Railway is constructed the distance to the station will not exceed two miles.

The necessity for the erection of a steam-engine, and the heavy expense attendant upon one, will be avoided by the adoption of the water-power, which is available to an unlimited extent.

The capital of the company is to be £18,000, divided into 6000 shares of £3 each, whereof £1 per share is to be paid at the time of subscription, and the remainder or balance, if required, to be called by instalments of not exceeding 5s. per share each, of which 31 days' clear notice is to be given for payment. It is not, however, expected that a larger sum than the £1 deposit will be required to place the mine in a productive position, and to yield from the produce a regular dividend to the shareholders.

This important and valuable property has been acquired by the promoters of the company for the sum of £7500, to be represented by and paid in 2500 shares of the capital of the company fully paid up, thus leaving £10,500 nominal capital applicable to the mining operations of the company.

The undertaking will be under the immediate direction and management of a board of directors, to consist of not less than three nor more than seven members, each of whom shall be required to qualify for office by subscribing for and holding 100 shares at the least in the capital of the company.

The mining operations of the company, which will be immediately commenced, will be prosecuted under the scientific and practical management of Capt. Matthew Francis, whose acquaintance with the district, aided by the rich discoveries he has already made, cannot fail to bring the company to great and eminent success.

The company is incorporated under the 19th and 20th Vics., c. 47, and 20th and 21st Vics., c. 14, to limit the liability of the shareholders to the amount of their respective subscriptions to the capital thereof, and the Articles of Association to define the system of management under which the company is to be conducted, and to contain provisions to secure and maintain a true and proper system of check and counter-check in its financial transactions, and in the issue and transfer of shares; and to reserve power to the board of directors to commence the operations of the company, and to carry out and conduct the business thereof before the whole of the capital be subscribed, and when in its discretion it shall deem expedient.

REPORTS.

West Silver Bank, Sept. 25, 1861.—Having by request inspected this mine, I beg to forward the following report:—The property is situated near the mine of stone from Aberystwith, on the Devil's Bridge Road, close under which there is a vein that passes from 4 to 5 ft. in width, 3 ft. of which is in a good course of lead ore, which will yield from 2 to 3 tons per fm. There are several other lodes that traverse the set, &c. Next week you shall receive a full report.

ABSALOM FRANCIS.

West Silver Bank, Sept. 27, 1861.—This mine is situated in the parish of Llanfihangel in the county of Cardigan, South Wales, the property of Col. Powell, of Nanteos. This extensive set has a run of one mile on the course of three known lodes, one of which has been discovered on the surface, and is a strong healthy lode, possessed of every indication, congenial for the bearing of lead ore, carrying with it a branch or lode of ore from 9 in. to 1 ft. wide, and I must say I never saw a finer looking lode in Cardiganshire. In fact, when you take into consideration the situation of the mine, and the advantages it has over many other mines, it will be found a difficult matter to obtain a set to equal it in this country: it is in a highly mineralised district, lying central between the Great Frongoch and Goginan Mines, which have paid such enormous profits, and close to the turnpike road, and only eight miles from the port of Aberystwith, from whence the ore can be exported. There is another great feature in this mine which should not be lost sight of; that is the facility afforded for the development of the mine, as the mines can be opened by cross-cuts, which will leave 100 fms. or more of backs, and can thus be worked without the aid of any pumping machinery: and looking at the geological feature of the mine, any practical man must come to the conclusion that it is a very valuable property, only requiring a short time for its profitable development. Therefore, I shall conclude by saying the result of my examination of the mine itself, and the great advantages have been eminently satisfactory to me, and such as would induce me to recommend it to my friends as a sure and safe investment. I wish you every success in your undertaking.

JOHN KEMP.

Tylydd, Oct. 1, 1861.—I have inspected the West Silver Bank Mine, and herewith beg to hand you my report thereon. On the north lode there is a very rich course of lead, which reaches to the surface, worth not less than £30 per fm.; whilst to the south there can be no less than three other master lodes, which are to be seen and extensively worked in the adjoining properties. I would, therefore, advise your coming westward about 60 or 70 fms., and driving on a cross-cut to reach the lode, which could be done in 20 fms. driving, and extend eastward on the course of the lode, which would prove its value, and at reaching the lode where the course of lead I have spoken about, you would have a back of from 30 to 40 fathoms. You would adopt the course which I recommend you would be proving the lode for the whole distance, and would, in all probability, enter the course of ore discovered many fathoms from, or rather before, where it has been laid open at surface. At any point you may think proper cross-cuts could be put in to prove the south lodes, and which I doubt not will be found productive and profitable. You can carry on the work I have recommended at a very small monthly expenditure, and when you reach the ore grounds, erect your machinery, for which there is every facility, having water enough for all purposes. I have, as far as lies in my power, given you a plain description of the capabilities of your grant, which is very extensive, being more than one mile in length and one mile in breadth, with one of the most liberal landowners in this country, Col. Powell. My own opinion is that, if you were to act on the plan I have proposed, good and substantial profits must be ensured to you for very many years—in fact, it has not been my lot to have met with anything of the kind in this country already discovered before, and I would and do strongly advise you immediately adopting my suggestions. The geological department I leave in better hands than that of my own, but I believe there is everything necessary to form large bodies of ore, and consequently have treated only on the practical part.

ABSALOM FRANCIS.

London, Oct. 4, 1861.—I have now returned from Cardiganshire, and beg to offer you my report of your West Silver Bank Mine, which almost before a blow has been struck with the pick is already a valuable property, as a valuable discovery of excellent lead ore has been made, and exists in quantities of £20 worth, or more, to the fathom, that anybody may see only 3 or 4 ft. below the grass—specimens of the lode broken by my own hands, which sufficiently vouch for the goodness of the lode, I this day deliver to the office—a sight seldom met with in the most established mines, and particularly striking in a new mine like yours. The mine is situated to the north of the Great Frongoch Mine, and to the west of Silver Bank Mine, the lodes of which are well filled with rich lead, and close to the boundary pass into and through the West Silver Bank grant. There are few mines in the world more favourably situated than this with respect to its geological and mineralogical conditions, which is in the heart of all the dividend-paying Cardiganshire mines, and between the silver-lead and the common lead districts. The convenience of carriage is also great, the Aberystwith and Devil's Bridge turnpike road passing over the top of the lode, and the ore is seen in large masses only a few feet from the road. The carriage is between eight and nine miles to port, but when the Manchester and Milford Haven Railway is made the distance to the station will only be about two miles. The facilities for mining this ground are exceedingly great: an adit driven 122 fms. will drain the formation of ore coming to the surface for a depth of 40 fms., and I estimate that, from the appearance of the ore ground at the surface and its extent as measured by the builders of lead strews along the surface, should the ore continue for the distance indicated by these evidences, this adit will not render available less than £50,000 worth of lead ore above its roof, which should give a profit of one-fourth, or £20,000. In this estimate I am only alluding to the ground above adit, and the calculation is not at all an extraordinary one with reference to the ore ground in the surrounding and sister mines; for example, at Goginan the course of ore was 60 fms. long, 60 fms. high, and worth £30 per fm., or £180,000; at Logyias £150,000 worth of ore has been extracted from above the adit, and at Frongoch a similar section of the vein has been worked upwards of £300,000—so that I do not make an extravagant estimate in predicting that this lode above a good adit taken up from the brook below would unwind and ventilate from £50,000 to £100,000 worth of lead. The ground is held under a favourable lease from Colonel Powell, and I am glad to be able to testify to you, and those becoming concerned in Cardiganshire mines, that the landlords of that county are taking a very liberal part towards the miner. I heard of an instance of Mr. Lowndes having reduced his royalty to a twentieth in a large mine in the district during my visit, and this, when the lightness of the water charges is considered, contrasts very favourably with the steam-drained mines of Cornwall. In West Silver Bank, besides the lode I have alluded to, where the ore comes up to the surface in masses of tons to the fathom, and for which I have only estimated the value of the section of the lode above adit. There are several other lodes full of metal, which by extending the cross adit will be drained to a greater depth than this, showing deformation here at the grass; and I have taken no account of the sections

of the lode below adit, which, as a matter of course, in this deep mining country, where the rock is 20,000 ft. in thickness, will be incomparably more valuable than those above. To the east of your mine, in the adjoining sets, the whole of the side of the mountain, from the top down to the River Rheidiol, has been excavated for metal by the Romans in their peculiar style of mining, chiefly by small chiseled levels, 3 ft. in height and 18 in. in width, turning from hand to hand, and giving the spectator the idea of an aisle in a Gothic cathedral; in other places open excavations exist along the line of the metallic veins in commemoration of that extraordinary people, the pioneers of the arts wherever they penetrated, and wherever they have touched for mining purposes. Although necessarily treated in a shallow manner in comparison with those deep workings for metal effected in modern times by means of man's most powerful coadjutor, the steam-engine, there is seldom any paucity of ores, on the contrary, very seldom wanted the instinct to settle over the largest masses of the most valuable metallic deposits. The lodes from these old Roman workings have been traced along the surface to your boundary, and the whole of these remain whole, intact, and full of metals to the surface throughout the large extent of your grant. Your object is not to find them, but only to extract them. I do not advise you to await for the adit, which, however, must be begun immediately, but put up the necessary water machinery, and begin to sink on the ore at once.

MATTHEW FRANCIS.

ANTHRACITE STEAM COAL.

MR. T. THOMAS WILL SELL, BY AUCTION, at Bury Port, near Llanelli, in the county of Carmarthen, on Tuesday, the 23rd October, 1861, at One for Two o'clock (on the condition of sale to be then produced) about TWO THOUSAND FIVE HUNDRED TONS of ANTHRACITE COAL, of prime quality.

The coal may be inspected on application to Mr. THOMAS BRUGES, at the harbour of Bury Port, as above; and further particulars obtained of the Auctioneer, Charlesville Place, Neath, and Worcester-place, Swansea.—October 4, 1861.

IMPORTANT TO IRONMASTERS, COLLIERY and MINE OWNERS, and OTHERS.

SALE OF A HIGHLY VALUABLE STEAM ENGINE, FIRST-CLASS COLLIERY PLANT, &c.

MR. THOMAS THOMAS has been favoured with instructions to SELL, BY AUCTION, on Tuesday, October 29th, 1861, at YSTRAD OWEN COLLIERY, near YSTALYFERA, SWANSEA VALLEY, at Eleven for Twelve o'clock precisely, the whole of the costly PLANT and MACHINERY, recently erected in the very best manner, by Messrs. Carr Brothers, and now in perfect working order, consisting of a most superior HORIZONTAL STEAM ENGINE, by an eminent maker, with 18 in. double cylinders, fitted with every recent improvement; winding apparatus for up-cast and down-cast, pumping gear; a 30 ft. egg-end boiler, of best Staffordshire plates, with cast-iron stays and bearing bars, and fitted with patent safety-valves, stop valves, steam and water pipes, &c., all of the very best description; a lift of 12 in. pumps, about 80 yards long; pole and pole case to work 6 ft. stroke, with excellent wooden pump rods working on iron rollers; bob and pendulum, with brass bearings, &c., all of the most superior kind; about 25 tons of bridge rails, 16, 18, and 22 lbs.; about 50 tons of main road rails, in excellent condition, 38 to 50 lbs. per yard, with chairs and sleepers therewith, and switches, guide rails, and parings to correspond; a superior weighing machine for trans, by Avery, of Birmingham; a pair of Smeeth's six-cell galvanic batteries, with silver plates, and several hundred feet of insulated copper wire and other requisites for blasting, in first-rate condition; a round wire-rope, about 120 yards, nearly new; a quantity of other wire-rope, a quantity of galvanised signal strand, an excellent patent tipping apparatus and large iron screen attached, a large number of iron and wooden trams and sledges for underground, 4 water wagons, a large iron drum and shive, readily convertible for pumping; a large quantity of colliery chains, of various sizes, nearly new; wooden air pipes, blowing fan, wheelbarrows, train-wheels, a large quantity of excellent boring tools, pickaxes, 1 narrow gauge trolley, a lot of spare traps for pumping rods, wrought-iron sockets, rings, frames, bearings, of Glasgow, one 48 in. steam cylinder, with iron axle, sockets, rings, frames, bearings, and brasses complete. Also, a hauling apparatus with drum and bearings, &c. Several fathoms of launders, with stays, hatches, &c., and a quantity of pulleys and stands. Also, about four miles in length of 2 in. galvanised iron wire-rope, and about two miles in length of 3/4 in. ditto, for signal purposes.

The above machinery is situated at each end of the Tavistock Canal tunnel; one portion at the Crebor Mine end, and the other at Morwellham. The whole will be found in exceedingly good condition, having been recently laid in quite new, and been used only for a very short time in hauling the iron boats through the tunnel, they are well worthy the attention of mine proprietors and agents.

For viewing apply to Mr. RYLANDS, at Morwellham; Mr. WILLIAM GALE, at Messrs. GILL, Sons, and Co., Wharf, Tavistock; and any further information may be obtained of the auctioneer.—West-street, Tavistock, October 9, 1861.

TERMS.—Approved bills at three months, or 2 1/2 per cent. for cash, on purchases, above £50.

The whole may be viewed on application to Mr. THOMAS WILLIAMS, agent, at the colliery. [This advertisement will not be repeated.]

MR. F. A. DAVIS WILL SELL, BY AUCTION, on

Wednesday, the 30th October, 1861, at Three o'clock in the afternoon, at the Ship Inn, at Morwellham, in the parish of Tavistock, TWO excellent WATER-WHEELS, one 18 ft. diameter, 2 ft. 6 in. breast, and the other 16 ft. diameter, 2 ft. 6 in. breast, with iron axles, sockets, rings, frames, bearings, and brasses complete. Also, a hauling apparatus with drum and bearings, &c. Several fathoms of launders, with stays, hatches, &c., and a quantity of pulleys and stands. Also, about four miles in length of 2 in. galvanised iron wire-rope, and about two miles in length of 3/4 in. ditto, for signal purposes.

The above machinery is situated at each end of the Tavistock Canal tunnel; one portion at the Crebor Mine end, and the other at Morwellham. The whole will be found in exceedingly good condition, having been recently laid in quite new, and been used only for a very short time in hauling the iron boats through the tunnel, they are well worthy the attention of mine proprietors and agents.

For viewing apply to Mr. RYLANDS, at Morwellham; Mr. WILLIAM GALE, at Messrs. GILL, Sons, and Co., Wharf, Tavistock; and any further information may be obtained of the auctioneer.—West-street, Tavistock, October 9, 1861.

TERMS.—Approved bills at three months, or 2 1/2 per cent. for cash, on purchases, above £50.

The whole may be viewed on application to Mr. THOMAS WILLIAMS, agent, at the colliery. [This advertisement will not be repeated.]

MR. J. R. WALLACE WILL SELL, BY PUBLIC AUCTION,

within the large room of the Savings Bank, Worthington, Cumberland, on Friday, the 1st of November, 1861, at Three o'clock p.m., by order of the Liquidators appointed to wind-up the affairs of the Worthington Hematite Iron Company (Limited), the whole of the BUILDINGS, COTTAGES, and PLANT of the said company, consisting of SIX BLAST FURNACES (with powerful heating apparatus), two of which are now in blast, two have been recently blown out, and two are quite new, never having been lighted. TWO BLOWING ENGINES, one 48 in. diameter, of Glasgow, one 48 in. steam cylinder, and 106 in. blowing cylinder, with 9 ft. stroke; the other 37 in. steam cylinder, 84 in. blowing cylinder, and 5 ft. stroke, with boilers, complete. The smaller engine is quite new. ONE single cylinder HIGH PRESSURE ENGINE, for hoisting materials to furnace top. TWO DOUBLE CYLINDER HIGH-PRESSURE ENGINES, for drawing wagons on to depots (one quite new); FORTY-FOUR COOKING OVENS; SEVENTY-TWO RAILWAY WAGONS; TWENTY-FIVE COTTAGES for workmen; together with counting-house, ample depots for materials, joiners and blacksmiths' shops, store-houses, stabling for eight horses, upwards of three miles of railways, water pipes laid throughout the works, and all the conveniences for supply.

The works are most conveniently situated on the north side of Worthington Harbour, which is connected with the great trunk lines running north and south, bounds the works on the east side. The whole is enclosed within 15 acres of ground, held under a 99 years' lease from the Earl of Lonsdale, 4 years of which have expired. The whole will be offered for sale in One Lot.

Conditions will be produced at the time of sale, and further information may be obtained on application to Messrs. LOCKHART and TOZER, of Liverpool, Manchester, and Wolverhampton; GEORGE LAWRENCE, Esq., of Moreton Court, Hereford; Mr. JAMES JENKINS, of St. Enoch-square, Glasgow; Mr. SMITH, the manager at the works, who will show the same; or WILLIAM THOMPSON, Esq., solicitor, Worthington.

J. R. WALLACE, Auctioneer.

TREVOCLE MINE, NEAR CAMBORNE.

FOUR THOUSAND POUNDS WORTH OF VERY SUPERIOR MACHINERY AND MATERIALS FOR SALE, BY PUBLIC AUCTION.

MR. GREENWOOD has been favoured with instructions to SELL, BY AUCTION, at Trevocle Mine, the following MACHINERY and MATERIALS, viz.:

ONE 60 in. PUMPING ENGINE, 10 ft. stroke, equal beam, with 22 tons of boilers. ONE 24 inch DRAWING WHIM and CRUSHER, with BOILER 10 tons, and all winding gear complete, just delivered from Copper House Foundry; together with capstan and shears, constant chain and whim chain; 200 fms. of pitwork, nearly new, from 10 in. to 16 in., with plungers and bottoms, all complete.

Full particulars will appear in future advertisements and hand-bills. In calling attention to the above machinery and materials, the auctioneer would beg to remark that the whole is nearly new, and in first-rate condition.

For particulars and to view, apply to Capt. HUGH STEPHENS, on the mine; Mr. PARRY, the pursuer, Camborne; or to the auctioneer, at his offices, Truro.

Truro, October 10.

R. GREENWOOD, Auctioneer.

THE SWANPOOL SMELTING WORKS.

VALUABLE AND EXTENSIVE SMELTING WORKS NEAR FALMOUTH, CORNWALL, FOR SALE, BY PUBLIC AUCTION, will be

HOLDEN at the Swanpool Hotel, Falmouth, on Monday, the 28th day of Oct., 1861, at Two o'clock at noon, for SELLING, in One Lot, with the concurrence of the Court of the Vice-Chancellor of the Stannaries, all that VALUABLE and EXTENSIVE PROPERTY situate in Swanpool, in the parish of Budock, near Falmouth, known as the SWANPOOL SMELTING WORKS, together with the various MACHINERY, MATERIALS, and EFFECTS thereof, particulars of which appear in hand-bills.

The above works are of a very superior description, no expense having been spared in their erection to render them most efficient and complete, and having been constructed by the company within the last two years they will be found in excellent repair and condition.

The above may be inspected at any time prior to the sale, on application to Mr. ROOKS, in charge thereof; and further particulars of the sale may be had on application to Mr. FREDERICK MARSHALL, the official Liquidator of the Swanpool Mining Company (Limited), in Truro; or to Messrs. VALLANCE and VALLANCE, solicitors, No. 20, Essex-street, Strand, London; or to Mr. STOKES, solicitor, Truro.—Dated Truro, October 10, 1861.

MINE AND STEAM ENGINE FOR SALE.

TO BE SOLD, BY TENDER, the FOREST MINE, situate in the parish of ILLOGAN, county of CORNWALL, together with a 24 in. STEAM ENGINE standing on the same (complete working boiler), and convenient SURFACE BUILDINGS.

This mine is situate in the most productive mining district of Cornwall, adjoining to and lying to the south of West Hill Frances, several of the lodes of which run into it. The property is held on a lease for 21 years, of which 11 years are unexpired.

The set is a very extensive one, and contains many unexplored lodes, offering at a comparatively small risk a chance of obtaining one of those very rich prizes for which the district is distinguished.

To view the property, application should be made to Capt. JAMES MAYNE, Tuckingmill, Camborne, Cornwall, who will receive tenders for the same up to the 1st November proximo.—Camborne, September 27, 1861.

TO BE LET, for such a term as may be agreed on, from 25th March next, the LONG BENTON COLLIERY, near Newcastle-on-Tyne, the property of the Right Hon. the Earl of Carlisle.

At this colliery the High Main Seam has been carefully tubed off, and the shafts sunk to the Low Main Seam, which is now in working.

The engine, screens, and other stock upon the colliery may be taken at a valuation. Further information can be obtained on application to M. LIDDELL, Esq., Hedgfield, Newcastle.—September 2, 1861.

DESIRABLE INVESTMENT.

FOR SALE, BY PRIVATE BARGAIN, ONE SHARE in the LEADHILLS MINING COMPANY. The mines at Leadhills have for many years been worked by the Leadhills and Scots Mining Companies, and have yielded, and continue to yield, lead in great abundance. By an agreement lately entered into between the above companies, the Leadhills Company obtained the sole right of working the mines, which are now in full operation. For further particulars, apply to SIMON L. KILLO, banker, Carnwath, Scotland, who will receive offers up to 15th November next. Carnwath, October 17, 1861.

NEW COLLIERY, NAILSEA, NEAR BRISTOL.

FOR SALE, BY PRIVATE CONTRACT, the WHOLE of the PLANT and MATERIALS at the above colliery, comprising—ONE HIGH PRESSURE DIRECT ACTING PUMPING ENGINE, cylinder 45 in. in diameter, and 10 ft. stroke. ONE HIGH PRESSURE WINDING ENGINE and gear, cylinder 12 in. diameter. ONE HIGH PRESSURE WINDING ENGINE, cylinder 16 in. diameter. THREE CYLINDRICAL BOILERS, 41 ft. by 6 ft. ONE CYLINDRICAL BOILER, 18 ft. by 4 ft. ONE CYLINDRICAL BOILER, 20 ft. by 3 ft. 6 in.

Hammered iron pumping cranks, T. bolts, 19 in., 14 1/2 in., 5 1/2 in., 5 in., and 4 1/2 in. forcing, lifting, and hand pumps; hammered iron straps, double straps and tail joints, buckets, clacks, wrought-iron clism, lifting screws, chains, large capstan, double-power crab winch, 80 fms. 10 1/4 capstan rope, 8 in. capstan and other ropes, blocks, boring tools, wrought-iron air pipes, tram plates, smith's bellows and tools, wagons, carts, &c.

To view, apply at the colliery; and for all further particulars, to BODDAM CASTLE, Esq., No. 29, Corn-street, Bristol.

SOUTH WALES STEAM COAL.—The LESSEES of a

VALUABLE STEAM COAL PROPERTY of 1000 acres, possessing special advantages, are DESIROUS of MEETING with PARTNERS WILLING to INVEST ONE-HALF of the capital. The property lies within a convenient distance from a seaport, and has a direct rail communication with the North of England. References, and reports on the property by eminent mining engineers from the counties of Monmouth and Glamorgan, and by practical mineral surveyors acquainted with the locality, will be supplied on application to "A. B. M." Mining Journal office, 26, Fleet-st., London.

CREASE'S PATENT EXCAVATING MACHINERY

FOR SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR, in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unobtainable advantage—that where the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—Mining Journal.

THE GREAT TYWARNAHALE MINING COMPANY (LIMITED).—Notice is hereby given, that the ORDINARY GENERAL MEETING of the shareholders of the above company will be HELD on THURSDAY, the 7th day of November next, at Twelve o'clock at noon, precisely, at the offices of the company, No. 3, Johnson's-buildings, Inner Temple, London, for the following purposes, viz.:

To receive the reports of the directors and auditors.

To elect two directors in the place of F. J. Partridge, Esq., and A. Keith Falconer Esq., who retire in rotation, but are eligible for re-election.

To elect two auditors in the place of Messrs. Wm. Flower and F. Cates, who then retire, but are eligible for re-election.

To submit to the shareholders, and, if approved, passing resolutions for authorising, in accordance with the powers and provisions of the Joint-Stock Companies Act, 1856, and of the Articles of Association of the company, the raising of further capital by the creation and issue of new shares, and for attaching to all such new shares a right to a preferential dividend.

And all such other resolutions, if any, as may be required for giving effect to the foregoing objects.

And to transact the other general business of the company.

By order of the Board, SHREWSBURY AND TALBOT, Chairman.

J. H. MACKENZIE, Sec.

And notice is hereby further given, that the register of shareholders and transfer books of the company will be closed until after the said meeting.

Dated October 19, 1861. J. H. MACKENZIE, Sec.

THE CENTRAL SNAILBEACH MINING COMPANY

(LIMITED). Capital £10,000, in 10,000 shares of £1 each.

Deposit, 2s. 6d. per share, payable at Messrs. Rocks and Co.'s, bankers, Shrewsbury, upon application, which will be returned if no allotment be made.

No call to exceed 5s. per share, nor to be made at intervals of less than three months. For the purpose of working most valuable veins of lead ore under Hogstow Hall Farm, in extent 295 acres, actually adjoining the western boundary of the celebrated Snailbeach Mine, two miles from the Ministry Railway station, Shropshire. The main lode of that mine has been recently discovered in this set.

The strictest investigation is desired. Detailed prospectuses and reports have appeared in the Mining Journal, and can be had from Messrs. PHILLIPS and DARRINGTON, 26, Gresham-street, London, who will afford every information; or from the undersigned, to whom all applications for the remaining shares are to be promptly made.

SAM. HABLEY KOUGH, Solicitor, Shrewsbury and Church Stretton.

NORTH POOL COPPER MINING COMPANY.

To be incorporated under the statutes limiting shareholders' liability to the amount subscribed.

Capital £24,000, in 6000 shares of £4 each.

Deposit, 2s. 6d. per share on application, and 2s. 6d. per share on allotment. The remainder by quarterly instalments of 5s. per share, as required for working the mine, of which due notice will be given.

Directors to be chosen by shareholders at the first meeting.

BANKERS—Messrs. Bolitho, Sons, and Co., Penzance, Cornwall.

SOLICITOR—F. W. SNELL, Esq., 1, George-street, Mansion House, London, E.C.

AUDITORS—Messrs. Cooper Brothers, and Co., 13, George-street, Mansion House, London.

SECRETARY—J. S. Phillips, 12, St. Michael's-alley, Cornhill, London.

OFFICES.—7, GEORGE YARD, LOMBARD STREET, LONDON, E.C.

BELL BROTHERS beg to intimate that, having become **SOLE LICENSEES** in the United Kingdom of **PROF. DEVILLE'S METHOD OF PRODUCING PURE ALUMINUM**, they are now in a position to supply, from their works here, both this metal and its compound with copper, known under the name of **ALUMINUM BRONZE**.—Newcastle-on-Tyne, September, 1860.

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, COZELL STREET NORTH, BIRMINGHAM.
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—
REFINED METALLIC NICKEL. **OXIDE OF COBALT.** **WIRE, &c.**
REFINED METALLIC BISMUTH. **GERMAN SILVER—IN INGOTS, SHEET**
NICKEL AND COBALT ORES PURCHASED.

STEAM BOILERS.—The MOST EFFECTUAL REMEDY for the REMOVAL AND PREVENTION OF INCORUSTATION IN STEAM BOILERS, stationary and marine, is **FIRTH'S ENGINEERS' FRIEND**, or **BOILER COMPOSITION**. By its use chipping is abolished, and a SAVING OF FUEL EFFECTED OF FROM FIFTEEN TO TWENTY PER CENT.

LONDON AGENT.—MR. SEPTIMUS ROBINSON, 32, FENCHURCH STREET.
AGENT IN CORNWALL.—MR. THOS. FOSS, CAMBORNE.

PATENT BITUMINIZED GAS, WATER, AND DRAINAGE PIPES.—These PIPES POSSESS all the PROPERTIES NECESSARY for the CONVEYANCE OF GAS AND WATER, and also for DRAINAGE PURPOSES—viz., GREAT STRENGTH, GREAT DURABILITY, and PERFECT IMPOSSIBILITY, and being non-conductors are not affected by frost, like metal pipes. They are proved to resist a pressure of 220 lbs. on the square inch (equal to 500 ft. head of water), are only one-fourth the weight, and considerably cheaper than iron pipes. They are made in 7 ft. lengths, and the joinings are simple and inexpensive. These pipes have been in use in France, Spain, and Italy nearly three years, where the demand for them is very great. The opinions of the press on a public test at the Houses of Parliament, before a large number of engineers and other scientific gentlemen, may be had, with further particulars, at the office of the company, on application to Mr. ALEX. YOUNG, 14a, Cannon-street, London, E.C., where sample pipes may be obtained for trial.

GAS AGAIN.—Another fearful fire, at No. 5, Richard-street, Limehouse-fields, caused by an escape of gas. This could not have occurred had one of **HUGHES'S PATENT SAFETY ATLAS INDICATING CHANDELIERS** been used. All persons having gas fitted should, therefore, have the IMPROVED ATLAS CHANDELIERS FIXED. Kept in stock by all gas-fitters. Drawings free by post, and a large stock always ready for the trade and merchants at the Atlas Works, No. 96, Hatton-garden.

ASSOCIATION OF BRITISH INVENTORS.
The determined hostility evinced in certain influential quarters towards patent property, and the strenuous efforts which will probably be made during the next Session of Parliament to alter the Laws Relating to Patents, have rendered it desirable that an Association of Inventors, and of those interested in the working of patents, should immediately be organized.
Gentlemen willing to assist in forming the Association are requested to communicate at once with
R. MARSDEN LATHAM, Hon Sec.
71, Fleet-street, London.

PATENT MOVABLE FIRE BAR COMPANY (LIMITED).
DIRECTORS.
SAM'L. H. BLACKWELL, Esq., Ironmaster, Dudley.
SAM'L. THORNTON, Esq., Merchant, Birmingham.
JONATHAN GRIMSHAW, Esq., C.E., Liverpool.
JOHN LLOYD, Esq., Engineer, Lillishall.
OFFICES.—16, HACKIN'S HEY, LIVERPOOL.

WRIGHT'S PATENT BARS FOR LOCOMOTIVE, MARINE, AND STATIONARY BOILERS, PUDDLING AND OTHER FURNACES.
The proprietors have great pleasure in recommending the above as the simplest and best arrangement in use. The bars have already been adopted by some of the leading firms in the Midland Iron District, in various channel and ocean-going steamers, and the large breweries in Burton, and have, in every instance, given great satisfaction.
For prices charged, apply at the company's office, Liverpool.
AGENTS WANTED; also, TENDERS from ironfounders for CASTING the BARS.

DODDS' IRON AND STEEL PATENT LICENSING COMPANY (LIMITED).
This company is PREPARED TO GRANT LICENSES on moderate terms for the USE of their PATENT for STEELING RAILS, POINTS, CROSSINGS, MACHINERY, and EVERY DESCRIPTION of IRONWORK.

The process, which is exceedingly reasonable in cost, and gives the most extraordinary durability to the material, has been highly approved of by the following gentlemen, firms, and companies, several of whom have extensively adopted the valuable improvement:—
ROBERT STEPHENSON, Esq.,
JOHN BOURNE, Esq.,
J. FERRING, Esq.,
THOS. E. HARRISON, Esq.,
THE GREAT INDIAN PENINSULA RAILWAY COMPANY.
THE NORTH-EASTERN RAILWAY COMPANY.
MESSRS. STEPHENSON AND CO.
THE EAST LANCASHIRE RAILWAY COMPANY.
THE GREAT NORTHERN RAILWAY COMPANY.
THE MIDLAND RAILWAY COMPANY.
THE METROPOLITAN RAILWAY COMPANY have ordered a large quantity of rails by this process.

THE FOLLOWING FIRMS are PREPARED TO EXECUTE ORDERS under the company's patent:—
MESSRS. S. BEALE AND CO., PARK GATE, ROTHERHAM.
MESSRS. DODDS AND SON, ROTHERHAM.
MESSRS. LOAH, WILSON, AND BELL, NEWCASTLE-ON-TYNE.
THE EBBW VALE COMPANY, SOUTH WALES.
MESSRS. LEVICK AND SIMPSON, NEWPORT, MONMOUTHSHIRE.
MESSRS. LLOYD, FOSTERS, AND CO., WEDNESBURY.
THE ISCA FOUNDRY COMPANY, NEWPORT, MONMOUTHSHIRE.
Applications for Licenses can be made to R. COOK, Esq., at the company's offices, No. 7, Sise-lane, London, E.C., where also testimonials and other information may be obtained.

THE LONDON AND PROVINCIAL AGRICULTURAL COMPANY (LIMITED).

Registered under the Act of Parliament, which limits the liability to the amount of shares taken.
Capital £100,000, in shares of £1 each; 10s. paid, 2s. 6d. deposit.
DIRECTORS.
Major-General PEMBERTON, York House, Chertsey, Surrey.
HENRY WETTON, Esq., Chertsey, Surrey.
EDWARD HUNT, Esq., Sydenham Villa, Sydenham-road, Bristol.
W. B. BODDY, Esq., M.D., Saville-st., Walworth-road, London.
WILLIAM RIDLEY, Esq., Crescent, Carlisle.
THOMAS RETIGAN, Esq., Stratways, Manchester.
SOLICITORS.—Messrs. Grover and Eldred, 8, Great James-street, Bedford-row, London.
AUDITORS.
Messrs. Cooper Brothers and Co., Public Accountants, 13, George-street, Mansion House, E.C.; and Messrs. Burbridge and Fletcher, Public Accountants, 61, Moorgate-st., E.C.
BANKERS.—The London and County Bank, Lombard-street, London.
BROKERS.—F. Everett, Esq., 17 and 18, Royal Exchange.
W. H. FOUNTNEY, Esq., 5, Royal Exchange, Manchester.
W. K. THOMAS, Esq., 23, Clare-street, Bristol.
Messrs. Massey and Son, Birmingham.
Thomas Miller, Esq., 72, Princes-street, Edinburgh.
Messrs. Stevens and Co., Dublin.
Messrs. Orr and Co., Belfast.
SECRETARY (pro tem.)—Mr. J. Retigan.
CHIEF OFFICE.—40, MARK LANE, LONDON.
MANUFACTORIES.—ALBERT WORKS, NIGHTINGALE STREET, STRANGEWAYS, MANCHESTER; and
CARLISLE WORKS, ABBEY TOWN, NEAR CARLISLE.

The above company has been established for the more extended manufacture, at reduced prices, of the Royal Patent Compound Oil Cake for Cattle, the Compound Feeding Meal, the original Enormous Food for Cattle, and patented Superphosphate, and other standard Manures.

Manufacture these reliable articles at a remunerative profit, and afford to all concerned an opportunity of participation—to reduce price and carriage so as to increase demand and facilitate it—and to effect this by reciprocal benefit to consumer and company, are objects which furnish a claim on public attention and public support.

By means of local manufacturers in certain districts this will be effected, and the daily augmenting demand which has made them necessary supplied.

The company starts with possession of two manufacturing plants fitted with machinery—one at Manchester and one at Carlisle—a large lucrative and established business—an existing staff of 500 agents to extend it, and has secured practical management in their directory.

It is estimated that the Manchester mill can produce a gross return in cake, meal, and food alone of £800 per week, and that the Carlisle mill can return about £500 per week, making a total of £1300 per week, the profits upon which, necessarily private from the nature of the business, will provide an ample margin for a dividend of from 20 to 30 per cent. upon the capital invested.

The erection of wooden sheds adjacent to the late proprietors' experience effected. The United Kingdom cannot be well covered under 1000 agents, and assuming their return to be but on the basis of the first calculation, you still have £364,000 per annum income, while this latter calculation can be considerably increased by additions to the business which the agents can effect, or which may be received from direct customers.

The cost of production and working expenses would, of course, be much less upon this return than a smaller one. And it would be but a moderate expectation that a return of 5000 tons of manure, which, at £5 per ton, would be £25,000 per annum, could certainly be effected through the same connection.

Sufficient has now been stated, in the limited space of a prospectus, to prove that an exceptional opportunity is presented for effecting a certain and profitable investment in a commercial business, which possesses every element to secure prosperity, and offers an unprecedented advantage to the investor. And the directors are confident in the belief that the undertaking will receive that support to which it is entitled by the objects it has in view from all persons interested in agricultural matters, as well as from those whose only desire is to make a successful investment.

The full prospectus, testimonials, circulars, and share application forms, can be obtained from all the local agents, the brokers, auditors, bankers, and solicitors; and from the secretary, at the chief offices of the company.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM.
BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.
IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—JONATHAN KETLEY SOHO CARRIAGE AND WAGON WORKS, NEAR BIRMINGHAM.
ALL DESCRIPTIONS OF RAILWAY WAGONS FOR SALE OR HIRE.
MANUFACTURER OF ALL KINDS OF RAILWAY IRONWORK.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS, ON SALE OR HIRE, AT THE ROTHERHAM WAGON WORKS, MESSRO'.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

THE MIDLAND WAGON COMPANY BIRMINGHAM.
RAILWAY TRUCKS ON HIRE OR SALE.
Bennett's-hill, Birmingham, October, 1861. HENRY BRIDGES, Sec.

THE RAILWAY CARRIAGE COMPANY, OLDBURY, NEAR BIRMINGHAM.
MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.
NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.
LONDON OFFICES.—No. 1, MOORGATE.

JAMES RUSSELL AND SONS, CROWN TUBE WORKS, WEDNESBURY, STAFFORDSHIRE.
WAREHOUSE.—81, UPPER GROUND STREET, BLACKFRIARS, LONDON, S.
THE ORIGINAL INVENTORS OF WROUGHT IRON TUBES FOR GAS, WATER, &c. LAP-WELDED BOILER TUBES, HOMOGENEOUS TUBES FOR BOILERS, &c. GALVANISED AND ENAMELLED TUBES, SCREWING TACKLE, STEAM AND WATER GAUGES, and EVERY VARIETY OF FITTINGS.

JOB TAYLOR AND CO., SWAN FOUNDRY, OLDBURY, NEAR BIRMINGHAM.
SOLE PROPRIETORS OF HINTON'S PATENT CUPOLA, which CONSUMES FIFTY PER CENT. LESS COKE than any cupola yet invented. MAKERS OF ALL KINDS OF MACHINERY connected with the GRINDING and TEMPERING OF EVERY SORT OF CLAY or MAIL, and for the MANUFACTURE OF BRICK TILES, DRAIN PIPES, &c. Also, HIGH and LOW PRESSURE STEAM ENGINES of any dimensions, and of GENERAL MACHINERY.

LLOYD AND LLOYD, ALBION TUBE WORKS, BIRMINGHAM.
MANUFACTURERS OF PATENT LAP-WELDED IRON TUBES, FOR LOCOMOTIVE, MARINE, AND STATIONARY BOILERS.
IMPROVED HOMOGENEOUS METAL TUBES.
ALL DESCRIPTIONS OF TUBES AND FITTINGS FOR GAS, STEAM AND WATER, PLAIN, GALVANISED AND ENAMELLED.
GUN-METAL STEAM GLAND COCKS, WATER GAUGES, &c.

SHORTIDGE, HOWELL, AND CO., HARTFORD STEEL WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS METAL PLATES FOR BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING THE STRENGTH OF STEEL with the MALLEABILITY OF COPPER. RUSSELL AND HOWELL'S PATENT CAST STEEL TUBES. MCCONNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to SHORTIDGE, HOWELL, AND CO., Hartford Steel Works, Sheffield; or Messrs. HARVEY AND CO., 12, Haymarket, London.

CORNISH BORER STEEL.—Upwards of ONE HUNDRED AND SIXTY MINES are SUPPLIED with this STEEL, and the DEMAND for it is RAPIDLY INCREASING.—For terms, apply to R. MUSSET and Co., Forest Steel Works, near Coleford, Gloucestershire.

CYANOGEN STEEL, CAST STEEL, SHEAR STEEL, and IMPROVED FOREST L BLISTER STEEL supplied to order by ROBERT MUSSET and Co., Forest Steel Works, near Coleford, Gloucestershire.
Address to the Works, Coleford.

TO COLLIERY PROPRIETORS.—IMPROVED SELF ACTING TIPLERS and SCREENS, for LOADING COALS at the PITS with dispatch, and ENTIRELY PREVENTING BREAKAGE. Manufactured by WILLIAMS and MOWLE, Egerton-street Foundry, Chester, where models and testimonials may be seen, and every information obtained. Prices moderate. Delivered at railway station.

COALS.—GEORGE J. COCKERELL AND CO., Coal Merchants to Her Majesty. Cash, 25s. per ton. Best coals only. Central Office, 13, Cornhill, E.C.

GEORGE J. COCKERELL AND CO., Eaton Wharf, Grosvenor Canal, and Office, 1a, Lower Belgrave-place, Piccadilly, S.W.

GEORGE J. COCKERELL AND CO., Furfleet Wharf, East-street, Blackfriars, E.C.

GEORGE J. COCKERELL AND CO., Sunderland Wharf, Peckham Canal, S.E.

WIRE-ROPE TESTING.
PUBLIC TEST of A. J. HUTCHINGS AND CO'S PATENT WIRE-ROPE at LIVERPOOL, FEBRUARY 27, 1861.
[From the Daily Post of March 1, 1861.]

On Wednesday, the 27th of February, a series of EXPERIMENTS on WIRE-ROPE took place at the Corporation Testing Works, King's Dock. The specimens tested were manufactured by the well-known firm of A. J. HUTCHINGS and Co., of Millwall, London, the Contractors to the Lords of the Admiralty and various foreign Governments, the character of whose work is so well known in this country, as well as all parts of the Continent. Capt. Duerant, of H.M.S. *Hastings*, and a number of other gentlemen connected with shipping, were present to witness the experiments, all of which were considered highly satisfactory, and in every respect sustained the reputation of the manufacturers. The following are the results of the experiments:—

An 8 in. rope bore 70 tons WITHOUT BREAKING.
Circumference and breaking strain.

Size.	Hutchings and Co.'s wire-rope for ships' rigging. Tested Feb. 27, 1861.	Newall and Co.'s Test of Oct. 29, 1860.	Garnock, Bibby, and Co.'s Test, Oct. 29, 1860.
2 1/4	5 tons 15 cwt.	—	8 tons 16 cwt.
3 1/4	11 " 14 "	7 tons 15 cwt.	—
4 1/4	16 " 10 "	—	18 " 5 "
5 1/4	22 " 8 "	—	—
6 1/4	28 " 10 "	16 " 10 "	—
7 1/4	34 " 10 "	18 " 10 "	—
8 1/4	40 " 10 "	—	26 " 10 "
9 1/4	46 " 15 "	—	—

N.B.—The 2 1/4, 3 1/4, and 4 in. ropes were the actual sizes tested. The remaining sizes and strains are comparative.

The above tests certified by Mr. McDonald the Superintendent of the Corporation Testing Works, Liverpool.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

BUTLIN'S APPARATUS FOR SUPERHEATING STEAM, by which means a SAVING OF THIRTY PER CENT. in the CONSUMPTION of FUEL is EFFECTED, TWENTY-FIVE PER CENT. LESS WATER is REQUIRED TO FEED BOILERS, a GREAT INCREASE OF POWER is OBTAINED, and the BOILER is RENDERED MORE DURABLE. The above patent can be applied to any boiler, either new or old, and to every description of engine. Most extraordinary reports have been received from parties who have used it, equally satisfactory to the following letters, and any further particulars may be obtained by applying to the patentees.
W. BUTLIN, VULCAN WORKS, WESTON STREET, NORTHAMPTON.

TESTIMONIALS.

Leadenhall-street, London, E.C., July 3, 1860.
DEAR SIR,—Having applied your patent steam superheater to the boiler of my steamship, *City of Nantes*, we have great pleasure in being able to state that your apparatus effects a saving of at least 30 per cent. in the consumption of fuel, besides giving additional speed upon the steamer. We do not hesitate in giving our opinion that your invention is a most important one, and one which must come into general use. We approve of your arrangements for admitting saturated steam with the superheater, to regulate the temperature at pleasure. Your plan of filling the heater with water during the time steam is being got up we think is quite a new idea, and remedies one of the great objections to superheaters generally—the rapid destruction of the tubes by the fire while steam is getting up. You are at liberty to make what use you please of this letter, as we think so valuable an invention ought to be made known to the steam shipping interest of this country. We are, dear Sir, your's truly,
W. Butlin, Esq., Northampton.

LANGTON AND WILSON.

Little Houghton, Northampton, July 29, 1861.
DEAR SIR,—We have given our engine a sufficient test, both in thrashing and sawing, since the introduction into it of your superheater, to enable us to speak confidently of the great improvement made by the alteration. We believe that your advertisements do not exaggerate the excellence, in any respect, of your patent. Many respectable parties who witnessed the working of the engine are willing to bear testimony to the truth of our statements. We remain, dear Sir, yours very truly,
SMITH AND THURSTON.

Naseby, Northampton, Aug. 24, 1861.

SIR,—I have much pleasure in being able to state that since your patent steam superheater has been applied to my engine I find a considerable reduction in the consumption of fuel, much less water is required to feed it, and a great increase of power is obtained. I am much pleased with the alteration. Yours truly,
L. WILFORD.

Earl's Barton.

SIR,—I am well satisfied with the alteration made in my engine, as it takes less coal and water since your heater has been introduced into it.

Yours truly,
CHRISTOPHER COLEMAN.

BEDFORD IRONWORKS, TAVISTOCK.
NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

SWAN'S PATENT LUBRICATORS.—These lubricators, the MOST ECONOMICAL and EFFECTIVE IN USE, CAN BE ARRANGED TO LUBRICATE MORE THAN ONE BEARING from the SAME APPARATUS, and the EXACT QUANTITY of OIL REGULATOR TO EACH. Application to the PATENTEE, at Hammersmith; or to J. B. MANTON, No. 5, Arthur-street East, London-bridge, E.C.

WALKER'S STAMPING MACHINES AND STEAM ENGINES, for REDUCING ALL KINDS of MINERAL ORES to IMPALPABLE POWDER, have been in use for these last ten years in all the leading mines of the United Kingdom and the Colonies of the British Empire; as have also his PATENT PUMPS and WATER LIFTS, and for economy of working and durability cannot be equalled. MANUFACTORY, 17, COWER STREET, CITY ROAD, LONDON.

MINERS' DIALS, LEVELS, ANEMOMETERS, PIT BAROMETERS, &c.
DIALS WITH THE LATEST IMPROVEMENTS.
APPOINTED MAKER OF HEDLEY'S DIAL.
BIRAM'S PATENT ANEMOMETER, 4 in., £2 10s.; 6 in., £3 2s.; and 12 in., £4 4s.
JOHN DAVIS, DERBY, MANUFACTURER OF MINING INSTRUMENTS.
Price list on application.

TO COAL OWNERS AND COKE BURNERS.
MACKWORTH'S PATENT COAL WASHER, OR PURIFIER.—This MACHINE will EXTRACT the SHALE and ALL HEAVY IMPURITIES from SMALL COAL at a COST of TWO PENCE PER TON. For particulars and references, apply to the makers, A. and T. FAY, Temple-gate Works, Bristol; or to Mr. Jos. RIDER, Basinghall-street, Leeds.

LEVER'S IMPROVED COLLIERY BRATTICE in every width, from 24 to 90 in. Price, from 6d. per square yard. Sample book on application to ELLIS LEVER, West Gorton Works, Manchester.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, DAVEY, and PRYOR who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, is infallibly distinguishable from all imitations, and ensures the continuity of the gunpowder. This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.
Address.—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

PATENT LEVER BREAK, FOR RAILWAY WAGONS, doing away with the objectionable break rack. Can be APPLIED to EXISTING STOCK at a TRIFLING EXPENSE. Royalty moderate. Models can be seen at 34, Great George-street, Westminster; and the break in action at the works of the Railway Carriage Company; at the Peterboro' Station, on the Eastern Counties Railway; the Rugby Station, London and North-Western Railway; the Cardiff Docks Station, Taff Vale Railway; and at the Works, Oldbury, near Birmingham, where all communications are requested to be sent.

IMPROVED APPLICATION OF WATER-POWER.
THE TURBINE.—MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, have been engaged for 12 years, with complete success, in MANUFACTURING their IMPROVED TURBINES, and can recommend them with confidence. This machine is applicable to all practicable heights of fall and quantities of water, giving a much higher percentage of power than any other description of water-wheels. On low falls it has the additional advantage of not being affected by floods or back water; and it is particularly well adapted for any falls where the quantity of water is variable.
Further particulars on application; also, references to turbines now at work on a great variety of falls.

THE GENERAL TELEGRAPHIC WORKS COMPANY (LIMITED).—This company is now PREPARED to enter into CONTRACTS with the British Government for India and the colonies, and with foreign Governments, public companies, or private individuals, for the CONSTRUCTION of DEEP SEA ELECTRIC CABLES and TELEGRAPHS generally upon Mr. Rogers's improved principles, or upon any other principle, combining strength, flexibility, and lightness, with cheapness and durability.

The insulation is so perfect as to ensure a rapid conveyance of messages through a distance of 3000 miles across the Atlantic, and such cable may be carried in a single ship and "payed out" the whole length as the proceeds.

Electric cables of smaller dimensions made to connect shorter distances; also electric ropes for railway purposes, for the use of Rifle Brigades and Associations.

Applications for shares may be made to the bankers, or solicitors, or at the offices of the company, addressed to the secretary, of whom the prospectus in full, testimonials, and every information may be obtained. Specimens of the cable may be seen at the company's offices, 215 and 216, Gresham House, Old Broad-street.

JAMES HENSON, Sec.
Offices, 215 and 216, Gresham-house, Old Broad-street, September 25, 1861.

HALL AND WELLS, PATENTEES AND MANUFACTURERS OF SUBMINE TELEGRAPH CABLES, CABLES, &c.—TELEGRAPH CONDUCTORS INSULATED WITH INDIA RUBBER at 25 per mile and upwards. CABLES WARRANTED TO STAND THE USUAL TEST FOR INSULATION. Further particulars as to price of cables, &c., can be had on application at 60, Aldermanbury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E.

Copper wire covered with silk, cotton, or any other material, to order.

SARL AND SONS, 17 and 18, CORNHILL, respectfully SOLICIT A VISIT to their magnificent ESTABLISHMENT. The ground floor is more particularly devoted to the display of FINE GOLD JEWELLERY, GOLD and SILVER WATCHES, and FINE GOLD CHAINS.

The SILVER PLATE DEPARTMENT is in the gallery of the building, and consists of every article requisite for the table and sideboard.

In the magnificent show-rooms is displayed a large and beautiful stock of ARGENT-PLATE, the manufacture of which has stood the test of 20 years' experience. Sent and sold have also fitted up a separate show-room for the display of DRAWING and DINING ROOM CLOCKS of the most exquisite designs. Books containing drawings and prices may be had upon application.

SARL AND SONS, 17 and 18, CORNHILL, LONDON.

ASSAY OFFICE AND LABORATORIES.
MESSRS. MITCHELL AND RICKARD beg respectfully to inform their friends that they have REMOVED from Dunning's-alley to No. 29, GREAT ST. HELEN'S, BISHOPSGATE STREET WITHIN, where the business will be conducted as usual in all classes of mineralogical, agricultural, and commercial assays and analyses, at moderate fees.

Special instruction to gentlemen desirous of acquainting themselves with expeditious methods of ascertaining the value of ores, manures, manufactured and colonial products &c., without having recourse to professional assistance.

CHEMISTRY.

ILLUSTRATED CATALOGUE OF THE BEST AND NEWEST CHEMICAL APPARATUS.
Sixty-four pages, 8vo., 240 woodcuts, 1s. post free.
PRICED LIST OF PURE CHEMICAL TESTS, ACIDS, &c., 1d.
ILLUSTRATED CATALOGUE OF GAS BURNERS FOR THE DISPLAY OF DRAWING, EVAPORATIONS, AND OTHER CHEMICAL USES, 1d.

JOHN J. GRIFFIN, F.C.S., 119, BUNHILL ROW, LONDON, E.C.

CHEMICAL TESTING IN THE ARTS.

GRADUATED APPARATUS FOR CHEMICAL TESTING IN THE ARTS BY THE METHOD OF VOLUMETRIC ANALYSIS, in sets, arranged for Acidimetry, Alkalimetry, Chlorimetry, for Limestones and Solutions of Metals. Ammoniameters, Hydrometers, Alcoholometers, Saccharometers, Balances, Weights, Accurate Glass Measures, Pure Chemical Tests, and all articles required by the analytical chemist.

JOHN J. GRIFFIN, F.C.S., 119, BUNHILL ROW, LONDON, E.C.

CRYSTALLOGRAPHY.—A SERIES OF ONE HUNDRED AND

TWENTY MODELS of CRYSTALS, executed in biscuit porcelain, size 2 in. to 4 in. in diameter, representing the principal crystals which occur among minerals, with examples of the simple and compound forms of the six systems of crystallisation. Adapted to illustrate all works on crystallography. Price 42s. the set.

A SYSTEM OF CRYSTALLOGRAPHY, WITH ITS APPLICATIONS TO MINERALOGY. By JOHN J. GRIFFIN, F.C.S. Price 6s.
JOHN J. GRIFFIN, 119, BUNHILL ROW, LONDON, E.C.

POPULAR MINERALOGY.—A COLLECTION OF SPECIMENS of the MOST IMPORTANT MINERALS and METALLIC ORES, accurately named. Each in a neat tray, and the whole in a mahogany cabinet, with folding doors, price £2 12s. 6d.

A similar COLLECTION of GEOLOGICAL SPECIMENS at the same price. Also, many collections of greater extent, both with and without cabinets.
JOHN J. GRIFFIN, F.C.S., CHEMIST, MINERALOGIST, and OPTICIAN, 119, BUNHILL ROW, where the specimens may be seen at any time.

THE QUARTERLY REVIEW, NO. CCXX., is published this day

CONTENTS:—
I.—SHELLEY'S LIFE AND CHARACTER.
II.—LIFE, ENTERPRISE, AND PERIL IN COAL MINES.
III.—IMMUTABILITY OF THE LAWS OF NATURE.
IV.—NEWTON AS A SCIENTIFIC DISCOVERER.
V.—GROWTH OF ENGLISH POETRY.
VI.—PLUTARCH.
VII.—EDUCATION OF THE POOR.
VIII.—ALEXIS DE TOQUEVILLE.
IX.—ADJUSTMENT OF THE CHURCH RATE QUESTION.
John Murray, Albemarle-street.

A BOON TO NERVOUS SUFFERERS.
TWENTY THOUSAND COPIES OF A MEDICAL BOOK for gratuitous circulation. HENRY SMITH, Doctor of Medicine of the Royal University of Jena, &c., who has devoted 15 years to the study and Treatment of Nervous Debility, Loss of Memory, and Indigestion, will send free, for the benefit of Nervous Sufferers, a copy of the NEW MEDICAL GUIDE, containing his highly successful mode of treatment, with necessary instructions by which sufferers may obtain a cure. Free on receipt of a stamped directed envelope, from the author's residence, J. Burton, Grosvenor, Tavistock-square, London, W.C.

THE MINING SHARE LIST.

DIVIDEND MINES.				
Shares.	Mines.	Paid.	Last Fr.	Bus. done.
4000	Bedford United (copper), Tavistock	10 0 0	5 5 5	10 0 0
340	Boscan (tin), St. Just	10 0 0	5 5 5	10 0 0
300	Botallack (tin), St. Just	10 0 0	5 5 5	10 0 0
1000	Carn Brea (copper), Illogan	10 0 0	5 5 5	10 0 0
3048	Carn Cymru (tin), St. Just	10 0 0	5 5 5	10 0 0
300	Carn Cymru (tin), St. Just	10 0 0	5 5 5	10 0 0
5000	Concorre (copper), Illogan	10 0 0	5 5 5	10 0 0
2450	Cook's Kitchen (copper), Illogan	10 0 0	5 5 5	10 0 0
12000	Copper Mines of England	10 0 0	5 5 5	10 0 0
35000	Ditto (stock)	10 0 0	5 5 5	10 0 0
1055	Craddock Moor (copper), St. Cleer	10 0 0	5 5 5	10 0 0
100	Crown Ertin (lead), Cardiganshire	10 0 0	5 5 5	10 0 0
125	Cwmystwili (lead), Cardiganshire	10 0 0	5 5 5	10 0 0
250	Darwent Mines (all-lead), Durham	10 0 0	5 5 5	10 0 0
1024	Devon Gt. Con. (lead), Tavistock	10 0 0	5 5 5	10 0 0
358	Dolowath (copper), Camborne	10 0 0	5 5 5	10 0 0
3000	Lyngwath (lead), Wales	10 0 0	5 5 5	10 0 0
512	East Basset (cop.), Redruth [S.E.]	10 0 0	5 5 5	10 0 0
6144	East Caradon (copper), St. Cleer [S.E.]	10 0 0	5 5 5	10 0 0
300	East Darwen (lead), Cardiganshire	10 0 0	5 5 5	10 0 0
2048	East Wheal Lovell (tin), Wendron	10 0 0	5 5 5	10 0 0
1400	Eyan Mining Co. (lead), Derbyshire	10 0 0	5 5 5	10 0 0
4040	Fowey Consols (copper), Tawdreshire	10 0 0	5 5 5	10 0 0
2800	Fordale (id.), [L.] [2500 £25 pd., 240 £15 pd.]	10 0 0	5 5 5	10 0 0
5000	Frank Mills (lead), Devon	10 0 0	5 5 5	10 0 0
6000	Great South Tolgus [S.E.], Redruth	10 0 0	5 5 5	10 0 0
1798	Great Wheal Fortune, Breage	10 0 0	5 5 5	10 0 0
5008	Great Wh. Vor (tin, cop.), Helston [S.E.]	10 0 0	5 5 5	10 0 0
1024	Herdshot (id.), near Liskeard [S.E.]	10 0 0	5 5 5	10 0 0
1000	Hibernian Mine Company	10 0 0	5 5 5	10 0 0
100	Levant (copper), tin, St. Just	10 0 0	5 5 5	10 0 0
400	Lisburne (lead), Cardiganshire, Wales	10 0 0	5 5 5	10 0 0
9000	Marka Valley (copper), Cardigan	10 0 0	5 5 5	10 0 0
6000	Mogpils Hills (lead) [L.], Somerset	10 0 0	5 5 5	10 0 0
1800	Miners Mining Co. [L.], [id.], Wrexham	10 0 0	5 5 5	10 0 0
5000	Mining Co. of Ireland (cop., lead, coal)	10 0 0	5 5 5	10 0 0
6400	Mont Pleasant, Mold	10 0 0	5 5 5	10 0 0
6000	New Birch Tor and Viller Consols	10 0 0	5 5 5	10 0 0
6000	North Downs (copper), Redruth	10 0 0	5 5 5	10 0 0
1366	North Gribbler, Redruth	10 0 0	5 5 5	10 0 0
6000	North Great Wheal, Breage	10 0 0	5 5 5	10 0 0
5000	Orehead (lead), Flintshire	10 0 0	5 5 5	10 0 0
6400	Par Consols (cop.), St. Blazey [S.E.]	10 0 0	5 5 5	10 0 0
200	Parya Mines (copper), Anglesey [L.]	10 0 0	5 5 5	10 0 0
200	Phanix (copper), tin, Linkinhorne	10 0 0	5 5 5	10 0 0
1772	Poiborro (tin), St. Agnes	10 0 0	5 5 5	10 0 0
1120	Providence (tin), Uny Lelant [S.E.]	10 0 0	5 5 5	10 0 0
16	Rhosmor	10 0 0	5 5 5	10 0 0
512	South Caradon (cop.), St. Cleer [S.E.]	10 0 0	5 5 5	10 0 0
512	South Tolgus (cop.), Redruth, Cornwall	10 0 0	5 5 5	10 0 0
498	South Wheal Frances, Illogan [S.E.]	10 0 0	5 5 5	10 0 0
280	Spearhead (copper), tin, St. Just	10 0 0	5 5 5	10 0 0
2450	St. Ives Consols (tin), St. Ives	10 0 0	5 5 5	10 0 0
2000	Tamar Con. (all-ld.), Beeralston [S.E.]	10 0 0	5 5 5	10 0 0
6000	Tincroft (cop., tin), Pool, Illogan [S.E.]	10 0 0	5 5 5	10 0 0
6000	Troavaden (copper), Marazion	10 0 0	5 5 5	10 0 0
672	Trevelyan Consols (tin), St. Ives	10 0 0	5 5 5	10 0 0
200	Trumpet Consols (tin), near Helston	10 0 0	5 5 5	10 0 0
1024	Wendron Consols (tin), Wendron	10 0 0	5 5 5	10 0 0
6000	West Basset (copper), Illogan [S.E.]	10 0 0	5 5 5	10 0 0
600	West Burton Hill (lead), Yorkshire	10 0 0	5 5 5	10 0 0
1624	West Caradon (cop.), Liskeard [S.E.]	10 0 0	5 5 5	10 0 0
6000	West Damsel (copper), Gwennap	10 0 0	5 5 5	10 0 0
6000	West Fowey Consols (tin and copper)	10 0 0	5 5 5	10 0 0
400	W. Wh. Seton (cop.), Camborne [S.E.]	10 0 0	5 5 5	10 0 0
512	Wheal Basset (copper), Illogan [S.E.]	10 0 0	5 5 5	10 0 0
266	Wheal Buller (cop.), Redruth [S.E.]	10 0 0	5 5 5	10 0 0
2900	Wh. Clifford Amalgamated (cop.), Gwennap	10 0 0	5 5 5	10 0 0
2000	Wheal Falmouth and Sperris	10 0 0	5 5 5	10 0 0
128	Wheal Friendship (copper), Devon	10 0 0	5 5 5	10 0 0
512	Wheal Jane (silver-lead), Kea	10 0 0	5 5 5	10 0 0
1024	Wheal Lead (tin), Uny Lelant [S.E.]	10 0 0	5 5 5	10 0 0
6000	Wheal Leadcott (lead), St. Ives	10 0 0	5 5 5	10 0 0
898	Wh. Margaret (tin), Uny Lelant [S.E.]	10 0 0	5 5 5	10 0 0
100	Wheal Mary (tin), Lelant	10 0 0	5 5 5	10 0 0
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	10 0 0	5 5 5	10 0 0
80	Wheal Owles, St. Just, Cornwall	10 0 0	5 5 5	10 0 0
6000	Wicklow (copper) [L.], Wicklow	10 0 0	5 5 5	10 0 0

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth	10 0 0	5 5 5	10 0 0
1200	Alfred Consols (cop.), Phillack [S.E.]	10 0 0	5 5 5	10 0 0
1024	Ballewidden (tin), St. Just	10 0 0	5 5 5	10 0 0
1200	Brightdale & Froggatt Grove, Derbyshire	10 0 0	5 5 5	10 0 0
200	Brynford Hall (lead), Flintshire	10 0 0	5 5 5	10 0 0
2500	Central Miners (lead) [L. £2]	10 0 0	5 5 5	10 0 0
6000	Charlotte United, Pernaunthorne	10 0 0	5 5 5	10 0 0
2000	Collacombe (copper), Lamerton	10 0 0	5 5 5	10 0 0
256	Conduroff (cop., tin), Camborne	10 0 0	5 5 5	10 0 0
256	Copper Hill (copper), Redruth	10 0 0	5 5 5	10 0 0
4076	Devon and Cornwall (lead), [S.E.]	10 0 0	5 5 5	10 0 0
672	Ding Dong (tin), Gwennap	10 0 0	5 5 5	10 0 0
12800	Drake Walls (tin, copper), Calstock	10 0 0	5 5 5	10 0 0
2048	East Falmouth (all-ld.), Kenwyn, Kea	10 0 0	5 5 5	10 0 0
128	East Pool (tin, copper), Pool, Illogan	10 0 0	5 5 5	10 0 0
6000	General Mining Co. for Ire. (cop., id.)	10 0 0	5 5 5	10 0 0
486	Gribbler and St. Aubyn (cop.) [S.E.]	10 0 0	5 5 5	10 0 0
119	Great Work (tin), Gernoe	10 0 0	5 5 5	10 0 0
200	Herward United (lead), Flintshire	10 0 0	5 5 5	10 0 0
6000	Hilgton Down Con. (cop.), Cals. [S.E.]	10 0 0	5 5 5	10 0 0
5000	Kelly Bray (lead, copper), Callington	10 0 0	5 5 5	10 0 0
200	Laxey Mining Company, Isle of Man	10 0 0	5 5 5	10 0 0
470	Newtowns Mining Co., Co. Down	10 0 0	5 5 5	10 0 0
700	North Rosekar (copper), Camborne	10 0 0	5 5 5	10 0 0
512	Rosewarne United (cop., tin), Gwennap	10 0 0	5 5 5	10 0 0
12000	Sordridge Con. (cop.), Whitcomb [S.E.]	10 0 0	5 5 5	10 0 0
128	South Crinias (copper), St. Austell	10 0 0	5 5 5	10 0 0
30000	St. Day United (tin and cop.), Redruth	10 0 0	5 5 5	10 0 0
30000	Tale of Towry (lead), Carmarthen [S.E.]	10 0 0	5 5 5	10 0 0
1024	West Providence (tin), St. Erth	10 0 0	5 5 5	10 0 0
340	Wheal Bal (tin), St. Just	10 0 0	5 5 5	10 0 0
4098	Wheal Edward (cop.), Calstock [S.E.]	10 0 0	5 5 5	10 0 0
1024	Wheal Grylls (tin), Pernaunthorne	10 0 0	5 5 5	10 0 0
5000	Wheal Killy (tin), St. Agnes	10 0 0	5 5 5	10 0 0
345	Wheal Lelant (tin), Wendron	10 0 0	5 5 5	10 0 0
1024	Wheal Margery (tin, copper)	10 0 0	5 5 5	10 0 0
396	Wheal Seton (tin, copper), Camborne	10 0 0	5 5 5	10 0 0
1024	Wh. Trevelyan (all-ld.), Liskeard [S.E.]	10 0 0	5 5 5	10 0 0
1024	Wheal Tremayne (tin, cop.), Gwennap	10 0 0	5 5 5	10 0 0

FOREIGN MINES.

2464	Burra Burras (cop.), South Australia	10 0 0	5 5 5	10 0 0
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	10 0 0	5 5 5	10 0 0
10000	Copiapu Mining Company, Chile [S.E.]	10 0 0	5 5 5	10 0 0
15000	East Indian Coal, Calcutta [L.]	10 0 0	5 5 5	10 0 0
70000	English and Australian [S.E.]	10 0 0	5 5 5	10 0 0
20000	Gen. Mining Assn., New Scotland [S.E.]	10 0 0	5 5 5	10 0 0
68000	Kapunda Mining Co., Australia [S.E.]	10 0 0	5 5 5	10 0 0
15000	Llaneros (id.), Pozo Ancho, Spain [S.E.]	10 0 0	5 5 5	10 0 0
10000	Lustanlian (of Portugal), Spain [S.E.]	10 0 0	5 5 5	10 0 0
108515	Marquitta and New Granada [S.E.]	10 0 0	5 5 5	10 0 0
100000	Port Phillip (gold), Clunes [S.E.]	10 0 0	5 5 5	10 0 0
11000	St. John del Rey [L.], Brazil [S.E.]	10 0 0	5 5 5	10 0 0
20000	West Canada Mining Company [L.]	10 0 0	5 5 5	10 0 0

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Altan and Quansang United (cop.) [L. £5]	10 0 0	5 5 5	10 0 0
10000	Gt. Barrier Land, Min. Assn., N. Ze. [L. £5]	10 0 0	5 5 5	10 0 0
10000	Pontigbad (all-lead), France [S.E.]	10 0 0	5 5 5	10 0 0
48174	Unit. Mexican (all-ld.), Mexico [S.E.]	10 0 0	5 5 5	10 0 0

NON-DIVIDEND FOREIGN MINES.

30000	Australian (copper), South Australia [S.E.]	10 0 0	5 5 5	10 0 0
75000	Bon Accord, South Australia (copper) [L. £1] [S.E.]	10 0 0	5 5 5	10 0 0
6000	Central American (silver), [L.]	10 0 0	5 5 5	10 0 0
17000	Central Italian (copper) [7000 £2 paid]	10 0 0	5 5 5	10 0 0
60000	Clarendon Consols (copper), Jamaica [S.E.]	10 0 0	5 5 5	10 0 0
10000	Copiapu Smelting [L.], Chile	10 0 0	5 5 5	10 0 0
75000	Dan Mountain (copper), New Zealand [L.] [S.E.]	10 0 0	5 5 5	10 0 0
25000	East del Rey, Brazil [L. £2]	10 0 0	5 5 5	10 0 0
30000	East Kongberg Native Silver Mining Co. of Norway [L. £5]	10 0 0	5 5 5	10 0 0
20000	Ellerslie and Bardwell, Jamaica	10 0 0	5 5 5	10 0 0
8000	English and Canadian Mining Company [L.]	10 0 0	5 5 5	10 0 0
25000	Fortuna (lead), Spain [L.] [S.E.]	10 0 0	5 5 5	10 0 0
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	10 0 0	5 5 5	10 0 0
4000	Hop Silver-lead and Copper Mining Co. [L.] [S.E.]	10 0 0	5 5 5	10 0 0
80000	Imperial Thessalian (lead, cop.), Thessaly [L. £2]	10 0 0	5 5 5	10 0 0
20000	Lagunano (sulphur, copper), Portugal [L. £1]	10 0 0	5 5 5	10 0 0
60000	New Granada (gold), [S.E.]	10 0 0	5 5 5	10 0 0
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	10 0 0	5 5 5	10 0 0
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	10 0 0	5 5 5	10 0 0
15000	Pacheca Silver Mining Company, Mexico [L. £1]	10 0 0	5 5 5	10 0 0
80000	Scottish Australian Mining Company [L. £1]	10 0 0	5 5 5	10 0 0
15000	South Europe Mining Company, Spain [L. £2]	10 0 0	5 5 5	10 0 0
60000	St. John's United (copper, lead), Newfoundland [L. £1]	10 0 0	5 5 5	10 0 0
45000	Vicor Emanuel, Italy [L.] [20,000 Pref. Shares, 25,000 £1 pd.]	10 0 0	5 5 5	10 0 0
1000	Western Africa Malachite (copper) [L.]	10 0 0	5 5 5	10 0 0
10000	Wheal Ellen, South Australia [L. £2]	10 0 0	5 5 5	10 0 0
35435	Wheal Jamaica (copper)	10 0 0	5 5 5	10 0 0
60000	Worthing (copper), South Australia [L.] [S.E.]	10 0 0	5 5 5	10 0 0

PROGRESSIVE MINES.

	Shares.	Mines.	Paid.	Last Fr.	Bus. done.	Last Call.
4825	Abbeys Consols (id.) Cardigan	2 7 0.	1 ..	..	..	Nov. 1860
1000	Alli-y-Crib (lead) [L. £2]	2 8 6.	2 ..	..	..	June, 1861
10000	Angarrack (copper), Phillack.	1 6 ..	1 ½	..	..	June, 1859
1000	Ashburton United (cop., tin)	14 0 0.	0 14 ½	..	..	Oct. 1861
10000	Bampfylde (copper), Devon ..	0 15 0.	4 ..	..	..	Aug. 1860
4000	Bedford Consols (copper) ..	1 19 6.	4 ½	2s. 4s.	..	July, 1861
2000	Berehaven (copper), Ireland ..	1 0 0.	1 ½	..	..	Sept. 1861
1000	Bickerton (copper) [L.] ..	1 0 0.	0 ¾	..	..	Sept. 1861
7500	Bickleigh Vale Phos. [L.] ..	2 0 0.	0 2 ½	..	..	Fully paid.
200	Billins (lead) [L. £20] ..	6 5 0.	20 ..	18 20	..	Feb. 1861
1248	Boscawell (tin), Penzance ..	6 5 0.	0 ..	..	..	Dec. 1860
2280	Boscawell (tin), St. Austell ..	6 15 0.	4 ..	..	..	Sept. 1860
160	Bosmore & Bolewall, St. Just ..	6 5 0.	10 ..	..	..	Dec. 1860
5000	Bosworth (tin), Sancerre ..	1 0 0.	0 1 ½	..	..	June, 1860
5000	Bottle Hill (tin), Plymouth ..	1 0 0.	1 ..	..	..	Jan. 1861
12000	Brea Con. (tin), St. Ives [L. 30s.]	1 0 0.	0 22s.	..	..	Jan. 1861
5000	Bronfayd (id.), Cardigan [L.]	2 0 0.	0 4 ½	..	..	June, 1861
113	Bron-Haung (id.), Denbighsh. 20	0 0 0.	0 20	..	..	No call.
4000	Brookwood (lead), Flint ..	1 5 0.	0 3 ½	..	..	Mar. 1861
500	Bryn Gwlog (lead), Flint ..	5 7 0.	0 25 ..	25 26	..	Oct. 1861
2000	Bryntall, Llanidloes, Montgo.	2 7 0.	4 ..	..	..	Aug. 1861
5850	Budnick Consols (tin), Perran	1 8 0.	0 ¾	..	..	Oct. 1861
6380	Buller and Basset Unit. (cop.)	1 3 0.	0 ¾	¾	..	June, 1861
2448	Bwlch (all-ld.), Cardiganshire	4 9 0.	0 2 ½	..	..	Nov. 1860
4095	Calstock Consols (copper) ..	5 10 0.	0 ¾	¾ ¾	..	Dec. 1860
915	Calvaddack, Wendron ..	18 5 0.	0 9 ..	..	..	Mar. 1861
1000	Camborne Consols (copper) ..	16 10 0.	8 ..	..	..	June, 1861
4600	Camborne Veau & Wh. Francis	7 17 4.	0 2 ½	2 ½ 2 ½	..	Oct. 1861
914	Caradon Cons. (tin), St. Cleer	22 7 0.	0 8 ½	8 ½ 8 ½	..	Sept. 1861
1000	Caradon Consols [L. £10]	0 7 0.	0 ..	..	..	Mar. 1861
2000	Carroll (all-ld.), Newlyn ..	6 7 0.	15 ..	..	..	May, 1861
6000	Carborne (tin), St. Austell ..	7 0 0.	0 1 ½	22s. 24s.	..	May, 1861
4370	Carnewas (id., cop.), Mawgan	1 3 0.	¾	..	..	June, 1861
3000	Carn Vivian (tin, cop., lead)	1 19 6.	0 2 ½	..	..	April, 1861
7000	Carrack Dewa ..	2 16 0.	1 ..	..	..	April, 1861
1056	Carvannall (cop.), Gwennap	21 11 7.	3 ..	..	..	Dec. 1860
10000	Carway and Duffryn [L.]	5 0 0.	0 5 ..	..	..	Fully paid.
20000	Carysfort (cop., id.) [L. £2 ½]	0 10 0.	0 8s. 6d.	..	..	Mar. 1859
25000	Casara (lead), Carma. [L. £1]	0 8 0.	12s.	..	..	Dec. 1860
10000	Castlewarg, Ireland [L. £1]	0 10 0.	0 15s. 6d.	..	..	Sept. 1860
2500	Cash Cilen (lead), Flishah ..	0 5 0.	0 1 ½	..	..	July, 1861
4000	Clara United (all-ld.), Penryn	2 0 0.	0 2 ..	..	..	May, 1861
984	Clijah & Wentworth (tin, cop.)	28 0 6.	2 ..	..	..	Oct. 1860
6000	Clinton and Edgecombe United	1 0 0.	0 1 ½	..	..	Oct. 1860
8135	Coed Mawr Pool (lead) [L.]	4 7 0.	4 ..	..	..	June, 1861
2560	Colomendy (lead), near Mold ..	1 0 0.	0 21s.	..	..	No call.
5000	Cornubia (tin), Roche ..	0 15 0.	0 ..	..	..	April, 1861
10000	Craigdon (id.) [L. £1], Kirkeud.	0 10 0.	0 ¾	..	..	June, 1859
906	Crane (copper), Camborne ..	8 0 0.	0 6 ½	..	..	July, 1861
30000	Craven Moor (id.), Yorkshire.	0 10 0.	0 4s.	3s. 4s.	..	No call.
12000	Creak (cop.), Tavistock ..	1 0 0.	0 ..	..	..	Mar. 1861
600	Crockhaven (lead), [L. £4]	1 10 0.	0 ¾	..	..	No call.
2000	Crowley (lead), Llanidloes ..	1 10 0.	0 ¾	..	..	No call.
6000	Crownade (cop.), Tavistock ..	0 11 0.	3 ..	..	..	Nov. 1859
6000	Cuddra (cop., tin), St. Austell	2 4 0.	0 2 ½	..	..	Aug. 1861
7000	Cwm Afon (cop.), Festi. [L. £1]	0 19 0.	0 ..	..	..	Dec. 1860
51000	Dead, North Staffordshire [L.]	1 0 0.	1 ..	¾ 1	..	Fully paid.
4817	Devon and Courtenay (cop.)	1 11 0.	0 11s.	..	..	Oct. 1861
5000	Devon Great Wheel Ellen ..	2 0 0.	0 ..	..	..	Mar. 1861
12000	Dev. New Copper Co. [L. £2]	..	2 ..	..	..	May, 1861
12000	Devon Union (copper) [L. £1]	0 12 6.	0 ¾	..	..	Aug. 1861
5000	Dron White (lead), Copper	0 12 0.	0 7 ½	..	..	Mar. 1861
1000	Durio (tin), Lelant ..	6 12 0.	0 7 ½	..	..	Mar. 1861
2000	Dolcath United [L.]	1 0 0.	0 2 ½	..	..	June, 1860
5000	Dulat (tin), [2048 £3s. pd., 2952	£1 pd.]	0 ..	..	..	..
244	Eaglebrook (lead), Cardigan ..	17 10 0.	0 15 ..	12 13	..	Oct. 1861
4095	East Alfred Consols (copper).	3 16 8.	0 1 ½	..	..	Sept. 1861
2000	E. Beam (tin), St. Aus. [L. £2]	0 10 0.	0 1 ½	..	..	Aug. 1861
6000	E. Bertha Con. (cop.), Tavist.	0 17 0.	0 1 ½	..	..	July, 1861
6000	East Budnick and Mount ..	0 10 0.	0 9s.	..	..	Jan. 1861
6000	East Carn Bros (cop.) Redruth	3 5 0.	0 9s.	0 ¾ 0 ¾	..	June, 1861
6000	East Crinnall and South Par ..	2 11 6.	2 ..	..	..	Sept. 1861
6000	East Damsel ..	..	..	..	..	Sept. 1861
6000	East Devon Gt. Consols (cop.)	0 13 6.	0 2 ½	..	..	Sept. 1861
4000	East Fowey (cop.) [L. 50s.]	1 15 0.	0 1 ½	..	..	June, 1861
6000	E. Grenville (cop.), Camborne	0 16 6.	2 ..	36s. 38s.	..	July, 1861
4000	E. Gunns Lake & S. Bedf. (cop.)	6 10 6.	1 ..	¾ 1	..	Oct. 1861
12000	East Mona (cop., &c.) [L. £1]	0 5 0.	0 ..	..	..	May, 1861
8000	East Polberro, St. Agnes ..	0 5 0.	0 ¾	..	..	May, 1861
4095	E. Providence (tin), Uny Lei.	2 3 5.	0 ..	1 ½ 2	..	June, 1861
6000	E. Relenth (tin, cop.), Wendron	0 1 0.	1 ..	..	..	Sept. 1861
6000	E. Rosewarke (cop., tin), Gwinn.	2 12 0.	0 1 ½	1 ½	..	Sept. 1861
1122	East Seton, Camborne ..	3 5 0.	0 ..	..	..	Oct. 1861
955	East Tolgus (copper), Redruth	60 0 0.	0 30 ..	..	..	June, 1861
1200	E. Trefusis (cop.), Gwennap	7 14 7.	1 ..	..	..	Sept. 1861
1024	E. Treakebury (cop.), Redruth.	3 10 0.	0 2 ..	..	..	July, 1861
1190	E. Wheal Agar (cop.), St. Cleer	8 7 0.	2 ..	..	..	July, 1861
6000	E. Wh. Ellen (all-ld.), St. Ives	7 1 0.	0 ¾	..	..	July, 1861
4000	E. W. Russell, Tavis. [S. E.]	0 4 0.	0 ¾	2 ½ 2 ½	..	Nov. 1859
5700	Exmouth (all-ld.), Christow.	5 16 6.	0 1 ½	..	..	Sept. 1861
6000	Fowey and Far Val., St. Biazey	0 10 0.	0 2 ½	..	..	Nov. 1860
6000	Frendon (cop., tin), [L. 30s.]	1 6 6.	0 2 ½	..	..	Oct. 1861
6000	Furze Hill Wood Cons. [L. 30s.]	1 6 6.	0 2 ½	..	..	June, 1861
114	Gard (tin), Morvah ..	22 0 0.	0 24 ..	..	..	June, 1861
1000	Garreg (lead), Flint ..	4 8 6.	0 ¾	..	..	July, 1861
4000	Gawton (copper), Tavistock ..	1 12 0.	0 ..	..	..	June, 1861
1024	Gellifowiller (id.), Holywell ..	0 2 6.	0 5s. 6d.	..	..	June, 1861
6000	Gernick (copper), Crowan ..	0 11 0.	0 ½	..	..	Sept. 1861
4892	Goginan (silver-ld.) [1900 £124,	2992 £1]	2 ..	..	..	July, 1861
6144	Gonamena (copper), St. Cleer.	2 12 6.	0 1 ½	..	..	Oct. 1861
2000	Gonozon, St. Neot ..	0 2 6.	0 4s.	..	..	June, 1861
4000	Great Briggan ..	0 12 0.	0 2 ½	2 ½	..	June, 1861
4095	Great Carna (cop.), St. Austell	1 10 0.	0 2 ½	..	..	Sept. 1861
6000	Gt. Crinnall (cop.), St. Austell	2 4 0.	0 1 ½	1 1 ½	..	June, 1861
4000	Gt. No. Tolgus (cop.), Redruth	2 17 6.	0 2 ½	..	..	Aug. 1861
10104	Great Onslow Cons., Camelfd.	3 10 9.	0 ¾	..	..	Dec. 1861
6000	Gt. Retallack (all-ld., biende)	1 7 0.	0 24s.	0 1 ½	..	June, 1861
47000	Gt. Tregune Con. [40,000 £4, 7000	£4 pd.]	0 ..	..	..	..
10000	Great Trevedoce (copper) ..	0 14 0.	0 ..	..	..	Aug. 1861
6000	Gt. Tywarthalle (cop.) [L. £5]	3 0 0.	0 3 ..	..	..	Oct. 1861
500	Great Wheal Alfred [S. E.]	14 1 2.	0 ..	..	..	July, 1861
3730	Great Wheal Fowey ..	1 10 0.	0 1 ½	..	..	Jan. 1861
6000	Gt. Wh. Busy (cop., tin), Kerd.	13 0 0.	0 5 ½	..	..	Mar. 1861
12500	Great Wh. Martha (cop.) [L.]	1 0 0.	0 1 ½	32s. 34s.	..	Fully paid.
10240	Gunnis Lake (Clitters) Adit.	0 2 0.	0 3 ½	..	..	Mar. 1861
5000	Gurlyn (cop., tin), St. Erth.	1 14 3.	0 ..	..	..	Oct. 1861
8634	Gwydyr Park Con., Llanrwst	0 15 3.	0 9s.	..	..	June, 1861
6400	Harwood (id.), Durham [L. £1]	0 3 6.	0 ¾	..	..	July, 1861
7219	Hawkmoor (tin, cop.) Calstock	2 17 6.	1 ..	..	..	Mar. 1861
8000	Holmbush (id., cop.) Callington	5 2 0.	2 2s.	1 ½ 2	..	Oct. 1861
6000	Hucklow Bridge (copper) ..	0 10 0.	0 30 ..	..	..	Mar. 1861
400	Imperial Silver (lead), Dolgell.	25 0 0.	0 30 ..	..	..	Mar. 1861
6000	Keswick (lead), Portinscale ..	5 0 0.	0 1 ½	..	..	July, 1861
6000	Lady Bertha (cop.) [S. E.] ..	1 12 6.	0 17s.	¾ ¾	..	July, 1861
3000	Lady Eliza (id.), Carm. [L. £2]	2 8 0.	0 ¾	..	..	June, 1861
1019	Leeds & St. Aubyn (tin, cop.)	15 12 3.	4 ..	..	..	Mar. 1861
963	Lelant Cons. (tin), Uny Lelant	32 10 0.	0 2 ½	..	..	Mar. 1861
2000	Lianfawr (silver-lead) [L.] ..	6 0 0.	0 6 ..	..	..	Fully paid.
1000	Lyfnewn (id., id.) Card. [L. £3]	1 0 0.	0 1 ½	..	..	July, 1861
500	Long Rea (lead), Flint ..	10 0 0.	0 13 ..	11 ½ 12 ½	..	May, 1861
4968	Lower Park (lead), [L. £1]	0 0 0.	0 ..	..	..	..
4968	Maudlin Mines [2484 £2, 2484	£1 pd.]	0 2 ½	..	..	..
4540	Merilyn (lead), Flint ..	3 11 6.	0 ¾	..	..	July, 1861
22900	Merryfield (lead) [L.] ..	0 12 0.	0 4s.	..	..	May, 1861
14000	Michell (lead), Flint ..	0 1 0.	0 9s.	..	..	June, 1861
26000	Moid (lead), Flints. [L. £1]	0 17 0.	0 ..	..	..	Jan. 1861
6411	Molland (cop.), S. Moulton ..	2 8 0.	0 2s.	..	..	July, 1861
6000	Nance Valley ..	0 5 0.	1 ..	..	..	Aug. 1861
1204	Nangiles (tin, copper), Kea ..	3 0 0.	0 ¾	..	..	Aug. 1861
1000	Nantcoth and Berthel [L. £4]	6 0 0.	0 2 ½	..	..	June, 1861
2400	Nant-y-lag (id.), Merioneth ..	3 0 0.	0 ¾	..	..	Mar. 1861
250	Nanty Mines (id.), Montgom.	20 0 0.	0 ..	..	..	Fully paid.
4000	Nether Heald (lead), Duffton.	0 15 6.	0 ½	..	..	April, 1861
6400	N. Crow Hill (id.), St. Stephen	1 19 6.	0 1 ½	..	..	July, 1861
6000	New Treleigh Cons., Redruth	1 8 0.	1 1 ½	1 ½ 1 ½	..	Feb. 1861
2000	New Wheal Clifford (copper)	6 0 0.	0 ¾	..	..	Mar. 1861
6144	New Wheal Francis, Crowan.	0 16 6.	0 8s.	6s. 7s.	..	May, 1861
1024	New Wheal Hender, Crowan.	2 10 0.	3 ..	..	..	June, 1861
2000	New Wh. Con. (cop.), Camborne	18 10 0.	0 4s.	..	..	Oct. 1861
2300	New Wh. Vor (cop.), Merioneth	2 14 0.	0 ..	..	..	July, 1861
2048	N. Wh. Vaddon (cop.), Marazion	0 19 6.	0 1 ½	..	..	Aug. 1861
6000	Nidderdale (id.), Yorks. [L. £1]	0 15 0.	0 ¾	..	..	Jan. 1861
90	N. Budnick (tin, id.), Perranz.	0 10 0.	0 40 ..	..	..	No call.
4500	N. Budnick and West Mount	0 0 0.	0 0 ..	..	..	..
1024	North Buller (cop.), Redruth.	20 17 6.	0 5 ½	4 ½	..	Aug. 1861
6000	North Clifford (cop.), Gwennap	0 5 0.	0 ¾	..	..	Nov. 1861
20000	North Devon (sil. id.) [L. £1]	0 8 0.	0 ¾	11s.	..	Oct. 1861
5000	N. Dol. Dol (cop.), Camborne	8 0 0.	0 2 ½	..	..	Oct. 1861
1000	North Forton (lead), [L. £1]	2 14 0.	0 ..	..	..	Oct. 1861
2500	North Frances, (cop.) [S. E.]	13 5 0.	0 4 ½	..	..	June, 1861
6000	N. Hafod (sil. id.), Car. [L. £2]	0 10 0.	0 ..	..	..	Sept. 1861
8000	N. Hallenbeagle (tin, cop.) [L.]	0 12 6.	0 1 ½	2 ½	..	Oct. 1861
2000	North Jane (tin, silver-lead)	3 5 0.	0 2 ½	..	..	Sept. 1861
6000	North Kil Hill (tin, cop.) ..	0 2 6.	0 ¾	..	..	Sept. 1861
6000	N. Laxey (id., id.) of Man [3600 £2,	2400 £1]	0 1 ½	..	..	June, 1861
3000	N. Levant (tin, cop.), St. Just	6 16 6.	0 6 ..	..	..	Aug. 1861
1000	N. L. North Miners (lead) [L.]	0 0 0.	0 2s.	21s. 23s.	..	April, 1861
6000	N. Nant-y-lag (lead), [L. 10s.]	0 0 0.	0 4s.	..	..	Sept. 1861
4000	North Portbly (silv. lead) ..	0 4 6.	0 4s. 6d.	..	..	Dec. 1861
4000	North Rosewarke, Gwinnar ..	0 4 6.	0 4s. 6d.	..	..	Dec. 1861